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ABSTRACT

A study examined the issue of educational equity in vocational education in 14 classrooms at 8 public secondary schools in Minnesota. The study used a naturalistic inquiry approach based on classroom observations and interviews with students, teachers, administrators, and counselors. Each of the members of the research team prepared a different section of this study report. Jane Plihal discussed the purpose and design of the study. In a section entitled "Gaining Access to Vocational Education: Ticket to Equity?" Marsha Rehm concluded that the focus in the programs observed was on low- and middle-ability students and discusses the dilemma posed when vocational programs are viewed as dumping grounds for students with lesser abilities and when classrooms contain students representing extreme ranges of ability and interest levels. In her paper "Treatment within Vocational Education Classrooms: How Equitable?" Linda Ernst concluded that student access to knowledge is the major equity concern once students enter a vocational classroom. She discussed several practices that enable all students to benefit from vocational education. The benefits of vocational education to all types of students, and especially to students who might not benefit from other types of programs, are examined in Linda Ernst's paper "Outcomes of Vocational Education: Blessing or Burden?" Jane Plihal's report, "Perspectives," summarizes cynics' and advocates' perspectives about access to, treatment in, and outcomes of vocational education. (MN)

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THE PRACTICE OF EQUITY

Access to, Treatment in, and Outcomes of Vocational Education in the Secondary School

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College of Education
University of Minnesota
St. Paul, Minnesota 55108

THE PRACTICE OF EQUITY

Access to, Treatment in, and Outcomes of Vocational Education in the Secondary School

by

Jane Plihal, Linda Ernst, and Marsha Rehm

Minnesota Research and Development Center for Vocational Education
Department of Vocational and Technical Education
University of Minnesota
St. Paul, Minnesota

1986
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Although we cannot reveal their identities, we are indebted to the many students, teachers, administrators, and their entire school systems for their collaboration in this study. Even though we were intruders in their classrooms and schools, they made us feel welcome and went out of their way to help us understand who they are, their reality of daily life in school, and their concerns and perceptions about vocational education.

Several colleagues at the University of Minnesota also played a major role in the collection and analysis of data for this report. Data for this report were collected as part of a larger study which sought to derive from practice the purposes of vocational education in selected secondary schools in Minnesota. Members of this research team, along with the three of us, were: George Copa, Steve Scholl, and Pat Copa. In addition, Jim Knight, who was on sabbatical from The Ohio State University, and Jerry McClelland, a faculty member at the University of Minnesota, assisted as substitute data collectors. The report of this larger study is titled, Purposes of Vocational Education in Secondary Schools of Minnesota--Some Insights from Current Practice, and is authored by George H. Copa, Jane Plihal, Steve Scholl, Linda Ernst, Marsha Rehm, and Patricia M. Copa. Copies of this report will be available in early 1986 from the Minnesota Research and Development Center for Vocational Education, University of Minnesota, St. Paul. A condensed version of this full report, authored by the same people and available from the same source, is titled, An Untold Story: Purposes of Vocational Education in Secondary Schools.

Preparation of this report involved the transcription of hundreds of hours of taped interviews; the typing, photocopying, and filing of thousands of pages of observation data; and the typing of several drafts of this monograph. This arduous work was accomplished by a staff of very efficient, persistent, and cooperative people: Pat Noeldner, LaRayne Kuehl, Mary Gupta, Karen Schuller, and Merri Fromm. Working with this staff were people in other units at the University who made it possible for us to get all the data in and out of the computer in a systematic way: Janice Jannett and Ron Schultz with the St. Paul Campus Computer Center, and Patsy McGlynn and Denise Wilson with the Department of Administrative Information Services.

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Jane Plihal
St. Paul
November 1985

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Chapter I

Introduction

If we could trace the concept of equity, we'd probably find that it originated with the first beings capable of reasoning. For we know that questions about how resources are distributed are neither time-bound nor culture-bound. In our world where demand generally exceeds supply, the issue of who gets what and how much is chronic and basic.

In hindsight, it seems that the field of education has been surprisingly slow to seriously take on equity-related issues. A major event which began to focus attention on equity in education was the 1954 Brown decision which found that separate educational facilities are inherently unequal. Especially since this Supreme Court decision, the field of education as well as society in general has raised some disquieting questions about the distribution of educational resources among students. Are blacks receiving as good an education as whites? Are female students denied some of the athletic opportunities enjoyed by male students? Is the quality of a student's education dependent on whether he or she lives in an inner city or a suburb? Are some students barred from certain experiences because they are in wheelchairs? The list of such questions has become painfully long.

To the credit of educators, legislators, parents, and other concerned citizens, some educational resources have been redistributed. Much effort has gone into school desegregation, budgets for female athletic programs have increased considerably, magnet schools have been created, and codes which ensure physical access to buildings have been written and enforced. These are only a few examples of attempts to make education more equitable.

So far, the major strides made towards providing more equitable education to students have come through federal legislation, sometimes followed by state legislation, which mandates certain actions--busing, building codes, or whatever. Along with this legislation has come heightened awareness and concern about equity-related issues and the development of policies to guide educational practice. For example, textbooks have been scrutinized for expressions of sex- and race-stereotyping and discrimination. Human relations courses have been developed to help teachers become more accepting of people different from themselves. The concept of mainstreaming has been instituted in many schools, and other programs for special needs students have been created.

Vocational education in the secondary school enters the discussion of educational equity in three major ways. To identify these ways is to raise questions about the very existence of vocational education and about what actually occurs during the practice of vocational education.

First, there are questions about who gains access to vocational education in the secondary school. Who takes vocational education courses and who does not? Are students with certain characteristics more likely to take vocational education courses than are students who have a set of other characteristics? Are students with certain characteristics more likely to take particular vocational education courses--that is, is there differential access to various vocational education offerings.

Second, there are questions about the treatment of students once they have gained access to vocational education in the secondary school. On what basis are educational resources such as teachers' time, equipment, and opportunities to develop understandings and skills distributed to students? Do all students have a fair chance to develop their potential?

Third, there are questions about the outcomes of vocational education provided in the secondary school. Does vocational education actually enrich students' lives? Does it provide them with job skills which help them obtain jobs? Does it help them obtain jobs which provide the rewards they desire--be they financial security, social status, enjoyment, or other? Does it help students select careers which they find meaningful? Does it contribute to students' economic and social perspective on work? How does vocational education affect students' lives in the long run?

Purpose of the Study

The preceeding concerns about equity and vocational education shaped the purpose of the study reported in this monograph: to identify practices related to equity as they exist on a day-to-day basis in vocational education classrooms in secondary schools in Minnesota. The central question of the study was: Who gains access to vocational education in the secondary school and in what ways is the treatment of students within vocational classrooms equitable or inequitable? The question of the extent to which outcomes of vocational education are equitable to students also was addressed. Although this question is as important as the questions of access and treatment, it received less attention due to constraints on the scope of the study.

Design and Conduct of the Study[1]

Most previous studies on educational equity have focused on selected variables (such as the number of times males and females are called on to answer teachers' questions, or the number of students of various ethnic groups enrolled in various courses) and have relied on data collection methods which limit responses or observations to standardized and predetermined categories. Rather than selecting specific variables in advance and rather than using highly structured questionnaires or observation forms, this study used a naturalistic inquiry approach to inductively describe practices related to equity in secondary school vocational education programs. We wanted to observe vocational education as it actually is practiced and in as holistic a way as possible, and we wanted to capture in their own words the perspectives of participants in vocational education (students, teachers, counselors, administrators). From such direct observations and person-to-person interviews, we expected that we could derive responses to the questions about access, treatment, and outcomes of vocational education which guided our study.

Data Source

Fourteen vocational education classrooms located in eight public secondary schools in urban, suburban, and rural communities of Minnesota were the focus of data collection. Various vocational education programs were represented in this sample: agriculture, business, distributive, home economics, and industrial. Nine teachers were in charge of these 14 classrooms. Five of the classes were single-period classes, and four were double periods. We purposefully selected these classes on the recommendations of our colleagues in the Minnesota Department of Education and at the University of Minnesota that these classes represented "good" programs.

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[1] For a fuller description of the research method used in this study, see Chapter 2 in Purposes of Vocational Education in Secondary Schools of Minnesota--Some Insights from Current Practice, Minnesota Research and Development Center for Vocational Education, Department of Vocational and Technical Education, University of Minnesota, St. Paul.

Data Collection and Analysis

Data collection occurred between March and May 1984. One method of data collection was participant observation. Each classroom was observed by one and the same researcher for three weeks with one- to three-week intervals between observation weeks. The observation plan consisted of observing the classroom for one minute and recording the observation during the next four minutes; this routine was used throughout each class period. The observations were open-ended. We attempted to record dialogue as well as observations about activities, settings, and characteristics of the people involved.

A second method of data collection was a tape recorded semi-structured interview. At each observation site, several people were interviewed: the teacher and three to six students of each classroom observed, a counselor, an administrator, and the director of vocational education. A total of 3 superintendents, 2 assistant superintendents, 6 principals, 9 counselors, 5 vocational education directors, 1 assistant vocational education director, 9 vocational education teachers, and 54 vocational education students were interviewed. The students we interviewed were selected by the teachers. For each class we observed, we asked the teacher to identify three students who benefitted differently from being in the class--one who had benefitted a great deal, one who had benefitted a moderate amount, and one who had benefitted very little. We chose to use this maximum variation sampling plan so that we could talk with students who presumably were having different experiences in the class, and, therefore, might express varying views.

A third data collection method consisted of having all the students in the classes observed respond to a written questionnaire developed by us. This "Student Survey" asked students to provide information about themselves, such as their age, the courses in which they were enrolled at the time, their reasons for taking vocational education courses, their grades in vocational education courses as well as their overall school average, and their career plans.

Transcripts of all the interviews and observations were entered onto a mainframe computer tape, and a key word filing system was used to sort the narrative data according to the equity-related themes we identified as we studied the data. After this sorting occurred, the material for each theme (i.e., access, treatment, and outcomes) was examined and a conceptual framework for each theme was outlined. The process of analyzing and interpreting the data actually was one of evolution. We met fairly frequently over a period of a year to discuss what we were finding, to make sense of our findings and thoughts, to sharpen our meaning of "the practice of equity," and to finally evolve the descriptions and interpretations that are offered in Chapters II, III, and IV.

The Meaning of 'Equity' Used in the Study

Equity is an abstract concept that is very difficult to get a handle on--especially when we go into classrooms to identify observable instances of it and when we talk with people in the hope that they can articulate their "equity experiences." However, that's what we tried to do in this study. It was a challenge to not only be clear about what expressions relate to equity but also to conceptually analyze those expressions in a meaningful and useful way. Based on our prior conceptual and empirical work on the meaning of equity, we undertook this study with a certain understanding of the concept.

A major distinction we make in a discussion of the meaning of equity is that between equality and equity. Basically, the concept of equality refers to sameness, equalness. Applied to education in its strictest sense, equality assumes that students present just about the same abilities when they enter school, that they should receive the same or equal educational opportunities or treatment in school, and, therefore, that they will all achieve the educational outcomes desired by society.

The concept of equity refers to justice, fairness. Underlying the notion of equity in education is the assumption that students are both alike and different. When they are alike in educationally relevant ways, they should be treated equally. When they are different in educationally relevant ways, they should be treated unequally. Perhaps the greatest problem in applying equity to education is to decide which variables are educationally relevant. There seems to be spoken agreement, backed by federal and state legislation, that sex, race, ethnicity, age, and handicaps are not educationally-relevant variables. That means that regardless of students' sex, race, et cetera, they should have equal access and opportunity to benefit from educational programs. Where this position falls short--from the equity standpoint--is that in order to realize the benefits of an educational program, some students might need unequal treatment. They might need, for example, extra attention from the teacher in order to learn to perform certain tasks at which other students are already highly skilled because they experienced a different socialization process which included the development of those skills. Equal treatment in this case would be inequitable. Unequal treatment is not only justified but also demanded when it enables students to experience their basic human rights and liberties and when it moves them in the direction of living a life of personal meaning and dignity. This is the concept of equity--a social justice concept--which we used to analyze and interpret our data.

The Organization of This Monograph

The chapters which follow present our findings and a discussion of them. In some cases, identities of the people we interviewed and observed are camouflaged. For example, we changed people's names, we omitted some descriptive details, and sometimes we referred to someone as "he" when the person was a "she" and vice versa. This has been done selectively and only when necessary to protect someone's anonymity.

Chapter II, prepared by Marsha Rehm, addresses the questions of: Who gains access to vocational education? Who does not gain access? What factors influence which students do and do not experience vocational education in high school? As Rehm points out in this chapter, "Access is not a simple act of walking in the first day of class."

Chapter III, prepared by Linda Ernst, explores what happens to students once they have gained access to a specific vocational education class. Essentially, this is a description of what equity looks like in vocational education classrooms. In this chapter, Ernst attempts to flesh out the issue of how students gain access to the knowledge provided in a particular class.

Chapter IV, also prepared by Ernst, is an initial "proof of the pudding" look at vocational education in the secondary school: What are the outcomes for students who enroll in vocational education classes? Are those outcomes a blessing or a burden? Although these questions are not answered definitively, students' expectations of potential outcomes as well as educators' expectations generally are full of hope.

Chapter V presents a discussion of the findings reported in the preceeding chapters. The discussion--intended to provide a basis for dialogue among vocational educators and others concerned about vocational education--offers two perspectives on the findings. First is the imagined perspective of the cynic of vocational education. That's followed by the imagined perspective of the advocate of vocational education.

Chapter II

Gaining Access to Vocational Education: Ticket to Equity?

Although Shakespeare considered the world to be a stage, today's diverse and complicated society seems comprised of many such stages. Indeed, each vocational classroom provided a unique setting and temporal "drama" for our investigation concerning equity. Superintendents, principals, and counselors shared their respective views about the roles that vocational education plays within the total school. Vocational directors, teachers, and students revealed ideas and thoughts from the very stage of vocational education itself.

While this study focused on dimensions and qualities of equity unique to vocational education programs, we must keep in mind that these courses play an active part within the wider drama of high school. From the trophy case that speaks of school pride to the graduation ceremony that punctuates high school life, potent symbols and norms direct student action and thought. Many activities and thoughts of individual participants within unique classes, therefore, reflected some common patterns.

From observations of vocational classrooms and interviews of key individuals, we identified both obvious and subtle parameters that affect equity in the immediate classroom. But even before a study of equity within secondary vocational education can unfold, students must get into these classes.

The seemingly simple issue of access, perhaps a momentary act at registration time, actually spins into a complex and intriguing tale that affects equity in vocational education. Two central questions will guide us in unraveling this tale. First, what factors influence access to vocational education in secondary schools? Second, how does access relate to equity?

Preview to Access

This paper first will describe the reasons why access to vocational education is considered by many to be essential to an equitable high school experience. The access opportunities that are ideally sought and those that are actually offered will be compared along with reasons why the "real" does not always meet the "ideal." We will then look at people who attempt to encourage or discourage students to enroll in vocational education. Because we found that the criteria for influencing students often differed according to the "type" of student, these types will be characterized in relation to equitable access. Finally, conclusions and general observations will be made. The complexity of the concept of access to vocational education generates many questions that need further philosophical and empirical investigation, and these will be raised throughout the discussion.

Comprehensiveness: Access for Everyone

Before desiring access to any given situation, we usually assume that the intended result will be worth the effort. Those we interviewed gave many reasons why access to vocational education was desirable.

The Value of Vocational Education

The word "comprehensive" frequently arose to describe a high school with the rich array of course disciplines needed to equitably benefit numerous individuals. In accord with their position as "overseers," several administrators and vocational education directors indicated that the option to take vocational courses adds vital diversity to a pluralistic school and society.

> Public education's task is to educate all of the children of all of the people. And, therefore, we offer a variety of educational opportunities for students. The vocational education section of any curriculum is an integral part of the overall school curriculum. . . . I don't think vocational education is any more important or any less important than any of the other kinds of opportunities we try to provide for kids because we must meet such a variety of needs.

> We look at the individual. . . . "OK, you decide, you're going to have all the opportunities, everybody's going to have the same equal opportunity, and you'll make your own decisions on where you go and what you do for a career." Because we have that concept, we have the kind of schools we have . . . voca-

> tional and college bound and technical all wrapped up in one school.
>
> For a comprehensive high school or junior high, you need a broad range of experiences that will fit the needs of a lot of different kids. . . . Somewhere in that school the kid needs to find a place to have success.

While we might expect those in administrative positions to value comprehensiveness for meeting the needs of a diverse student population, teachers and counselors also emphasize the need for students to experiment with a variety of courses. Their general prediction was that vocational offerings would help broaden students' experiences and personal development, challenge students in varied ways, introduce unique subjects in which students might otherwise remain ignorant, and provide specific problem solving skills.

> I think it's like going to a smorgasboard. You have to pick and choose what you want. I don't think it should be restricted to any kind of people. I think kids should be able to choose vocational kinds of programs and pre-college. This is the route that our counseling staff works on. Don't entangle yourself up into one thing. Try a lot of things so when you leave you have two or three different routes to go.
>
> It gives the students opportunities to find out who they are and where they are and where they want to go . . . what they can and can't do.
>
> I believe that everybody should have some exposure to vocational types of classes. For instance, we push typing real strongly. Everybody should know how to type and that's the truth. So I think it should have a function in every kid that comes through high school.
>
> I just happen to be a strong advocate of a comprehensive school. . . . You can't have a high school if you don't include courses that broaden kids . . . which would include business, industrial arts, and home economics.

Students also believe that vocational education makes important contributions to secondary schools, and they indicate that the information gained after access can lead to connective links with the world external to school. It is interesting to note how one student related a particular agriculture class to the larger world:

> I just think [agriculture] is one of the most important classes anybody could take. If I had my way, it would be mandatory.

> Because it's important to learn about your environment, your surroundings. Not just the farm animals and things like that, but where do you get your food? Why do you get it? How it's made. . . . Everything kind of relates to ag. If we don't have agriculture, in a sense we really don't have a lot of things.

Although adults and students alike value vocational education classes, we found that access to vocational education is not simply a function of its existence. How do people expect equitable access to be attained?

Attaining Equitable Access

Many of the administrators and counselors equated equity of opportunity with freedom of choice among alternatives. They believed that those who need or want vocational education have it as a choice and those who do not need it voluntarily keep their distance.

> Equity does not mean to me that everyone shall have equal numbers of kids, equal amounts of money, equal amount of space, equal amount of staff. Those determinations are made based upon the degree to which the people wish to participate in the services.
>
> Vocational education should be offering what is demanded. It should offer more than it can deliver and then deliver what is demanded. . . . I think that vocational education has . . . responsibility to constantly be attempting to evaluate what it is that students desire and need both from their frame of reference and how they see community needs, the employment world needs. . . . They must constantly be reactive to what the demands of both of those areas are. But the bottom line is the consumer.

The above opinions portray the course selection process as analagous to the "free trade" system. But we might ask: How free is public education? It is connected with a tax base, compelled to comply with regulations dictated by the state, and enveloped in community values.

Forces Influencing Access

If we look closely at what seems to be open and untrammeled consumer choice, we discover that access to vocational classes actually is steered by some powerful political forces. Because students live in a society of fluctuating interests, the very texture of a comprehensive school changes somewhat with the "pull and tug" of national trends, community norms, family values, and school dynamics.

Political Influences

For the people we talked with, one of the most worrisome current trends was the flurry of national reports recommending more "academic" study. A principal said that this recommendation simultaneously deflates the value of vocational education:

> With all the emphasis nationwide now on a basic core of subjects that everyone has to have, I think that there is a diminishing effect on vocational education. We'd be making a big mistake if we didn't keep some of those doors open. . . . [Interest of students] is going down, generally I think as a result of *Nation at Risk* and some of those national reports. At one time we had those national reports coming out that said that our young people don't have enough vocational experience. So it swings.

Furthermore, such values lead to concrete political action that affects us all.

Political action is sometimes advantageous to vocational education as one superintendent gratefully acknowledged:

> I feel we have the ag program we have now because it's supplemented. I believe we have the home ec program the way it's structured now because of supplement. [The State Legislature says] if you teach ag you must have these components in it, and if you do we'll reimburse you 50% of the cost of that program. So we make darn sure we have those components.

Although this particular vocational system seems stable and secure, the statement highlights the close relationship between political demands and state support. But the political support towards vocational education is changing and value differences between those who wish to increase emphasis on "the basics" and those who wish to keep and update vocational education programs result in political maneuvering shifts which ultimately create tensions of adjustment. We will now look at two shifts which create struggles for vocational education and which affect equitable access.

Funding. Decreased material benefits for vocational programs were particularly noticeable. Although some districts felt the "crunch" more than others, a comment by a vocational education director illustrated the frequent opinion that monetary support is becoming more scarce:

> I have a problem with my money. The state quit reimbursing me three years ago, and in fact, I made up my budget and I feel it's a bare bone budget based on what the teachers are asking for.

But is good education necessarily dependent upon money? The following quotations from a superintendent and a principal point out that money is at least necessary for modern equipment and teacher updating.

> If we could just ignore the cost, if I could be able to have unlimited word processing equipment, unlimited computers, calculators, and so on available for the business education and accounting department, I think that we would do a better job here. I think we would also attract a new group of students. We would attract some highly skilled students.
>
> I would like to have more equipment and I would like to have more teachers. . . . I think that would improve vocational education. We could fill more vocational offerings in the school.

Not only does a program need money for good quality resources, but also resources are intimately linked to attractive programs. Currently, secondary vocational programs are thought to be caught in a bind. As long as political feeling swings from vocational to college preparatory programs, the teacher updating and modern equipment necessary to a thriving program will not be readily forthcoming.

Access to vocational education is affected in several indirectly powerful ways. Students who listen to the current national concerns are less likely to enroll in even the "best" vocational courses. And we would not expect many to enroll in courses where equipment and materials are outdated. Ironically, decreasing enrollments in vocational courses contribute to a "downward spiral" of fewer students and less financial support for modern programs.

How is equity affected? Perhaps those who actually depend on vocational education suffer most when the rhetoric tells them their program choice is not as valuable. The students who wish to experiment with various options in high school, in order to gain a "breadth" of disciplinary insight and to decide upon future careers, also lose when lack of encouragement and updating (teacher and equipment) deters their desire to try vocational education. Access is diminished by subtle voices--rhetoric, dwindling resources, and less political support--that tell all students that vocational education is "less than" academic education. Equitable access is reduced when students are swayed from even entering what might be excellent vocational courses.

Requirements. The political act of changing graduation requirements affects student options even more directly than programs that are gradually given fewer resources and poor press. Current increases in required credits in mathematics, science, and foreign language limit students' freedom to experience vocational and other elective courses. Adults were worried about student opportunity to take vocational electives, and they took various steps to keep options open. A vocational director commented on one tactic to deal with such worries:

> There is already a squeeze where they increased the requirements for math and increased the requirements for science and so on. That could get to the point where the student, in order to make all the requirements for graduation, isn't going to be able to take vocational. We're not there yet. We did something here within the last month. We are giving academic credit in math and science. . . . Let's say they take electronics. They earn a full credit in math, full credit in science towards graduation.

This director goes on to say that most principals were in agreement with the policy to give required academic credit for certain vocational courses, but one would agree to give only half credit for such courses. In our society any course that offers only half credit makes a definite statement about its worth.

College requirements set precedents that similarly affect the perceived worth and the type of high school credit requirements. One teacher noted that although college requirements affect high school requirements, erroneous unwritten expectations also affect vocational classes:

> When higher education puts limits and requirements on college entrance, then students deliberately eliminate vocational background, and this is a limitation. So it seems as though now students who are going to go on to college are being told, and their parents are being told, and they believe this, that they have to take a foreign language in high school. Bull.

Of course, the foreign language teachers might have a different perspective! It takes a value judgment to determine which type of requirements are most equitable for students' futures. Seemingly neutral facts of graduation requirements thus become ignited fuel for dividing vocational people and various others. Notice how a principal elevated the "difficult academics" even when vocational education is also valued:

> More recently we've been looking at trying to emphasize the more difficult academic things because of all this talk about excellence, Nation at Risk, and all that. We've incorporated what we call an "academic honors diploma" which is based on taking so many credits out of specific lists of courses. . . . They've

> been chosen as the ones you tend to think of as college preparatory courses. . . . Basically, vocationally oriented people are the ones that question it because they feel it might be detrimental to their program if students get the idea that science and language, history, are more important than ag, industrial arts. . . . They seem to think, "What's wrong with my course?" We say there is nothing wrong with it. It's just that traditionally colleges care whether you have had science and math and can handle a language and so on.

Although the principal seemed persuaded by national expectations to place college preparatory courses in a special honors category, an agriculture teacher in this school protested. He felt that his courses covered a variety of mathematical and scientific principles and deserved to be included on the list of "academic honors" courses:

> I feel so strongly about it that when this school moved to an "honors diploma" and made a list of classes in group one and a list of classes in group two, and students who definitely wanted to get an honors diploma rather than just a regular graduation diploma had to select three classes out of group one and five more classes out of group two, and none of my ag classes were involved in that, I challenged that as far as I could challenge it.

Certainly, vocational teachers feel a growing constraint. Increased national attention to the academic subjects, increased academic graduation requirements, and decreased funding are phenomena that intentionally or unintentionally screen high school students out of vocational education.

But vocational education is not a dinosaur headed for extinction. Even in the face of declining general support for vocational education, some programs are thriving. Even potent social fervor does not automatically determine local conformity to dominant thinking. Let's turn to the local context to see how the community view of vocational education affects student access to quality programs.

Community Settings

Each community has its own norms and values set within the national sociopolitical ebb and tide. Not surprisingly, we found that community support for vocational education varied widely. A home economics teacher felt support from both her school and community:

> I think [we have support] from teachers, and administration . . . very much so. I think they're happy with the program. And even in the community things are going well. That's probably why [teachers and administrators] are so supportive.

Do attitudes of communities and schools affect student access to vocational education? The following observations from two counselors in different districts hint at an affirmative answer:

> I think we need more of a balance. Our community doesn't allow that. Most of the people, for the most part, are either managerial or professional. Then we obviously have other groups. But those people in other groups want their kids to go into managerial-professional rather than vocational. But that's naive. We know that there are kids that are going to leave the school in June that are going right in the labor market.
>
> This is known as the blue collar community and that's the way a lot of the people on this side of the town think. Vocational education is a big thing for them.

It follows that students living in communities comprised of managerial and professional adults might have less access to secondary vocational programs than those comprised of other workers. Regardless of whether local values deviate or conform to those that reign nationally, they still influence students' access in the same powerful ways as the national values. Is this influence equitable?

By definition, equity results when individual needs are met in appropriate individual ways. Consequently, equitable opportunity to enroll in vocational education is related to influences more fundamental than social pressure. People who directly interact with individual students are in the best position to help them assess their needs and select the best courses to meet those needs. In the face of negative social press, it is quite surprising that families, counselors, peers, and teachers are often positive about access to vocational education! Perhaps most directly influential are families of students.

Families

Because several teachers noted that a series of siblings in one family would pass through specific courses over the years, families must discover reasons for continued loyalty. In fact, siblings and parents of those already in vocational courses were overwhelmingly supportive and influential.

> This is what happened. My sister took this class and went to TVI and graduated from TVI two years later. Now she's a super-

> visor. She went up two weeks ago to apply for prep cook. They found out what she did in high school and they asked her if she wanted to be a supervisor. So I thought that was kind of neat.
>
> My brother and sister took it, and they said they really enjoyed it, and they really got involved with it. So I thought it would be a good experience.
>
> My mom is really glad about my job, because I'm going to nationals for this competition that we're in, and the company that I work for has a branch out there. I'm going to tour the branch when I'm out there. They asked me. I was really surprised. So my mom is really glad about that.

Because they found a personal benefit of some type, the above quotations further imply that students and their families consider such experience to be equitable. Perhaps direct experience with vocational education is necessary to fully understand its qualities and benefits.

Regardless of the reasons, the positive parental assessment is perhaps one of the most significant findings of this study. Considering the fact that families comprise the communities and nation, the stark constrast between popular status and the more individual positive family feelings is indeed amazing. But it begins to make sense in terms of equity. Individuals are different and access to vocational education is necessary for at least some students to receive an equitable secondary education.

Another powerful set of direct influences is situated at school where vocational and general education are daily staged. Do these influences tend to "side with" the national or the family assessments?

School Influences

Counselors, teachers, and friends encourage or discourage students from taking vocational classes. Counselors are often considered to be the most powerful influence on "who goes where" at registration time.

Counselors. Some vocational teachers complained that counselors directly lead students away from vocational courses into English and math courses or they indirectly prevent enrollments by not mentioning them as available options. These teachers believed both direct and indirect influences were equally detrimental in the long run because students were not given fair opportunities to even try one or more vocational courses. Other teachers praised counselors for providing students with accurate and complete information about their programs.

Teachers' feelings are mixed as to whether counselors help or hinder students' access to vocational courses.

> There are areas that you can go into that aren't necessarily just being an engineer or scientist or whatever you want to call it. . . . If teachers don't get to see students, then [they] can't tell them because the counselors aren't going to tell them. . . . What [counselors] say is, "Okay, that's a good program but you've still got to have your X, Y, and Z courses so you better not take graphics. Even if you want to go that way, you'd better take this and this and this."

> I think everybody needs to be served in the manner that best fits them within this school. Now that's a politician's statement, right? And I sincerely feel that. I also sincerely feel that there are a lot of kids at the high end, the high middle, and all the way down to the low, who could strongly benefit from a marketing program if they have appropriate career goals already identified. And a lot of them do. But some of the counselors try and talk kids out of programs.

> I feel the counselors support us and encourage kids that they feel specifically geared towards vocational kinds of programs.

Students also indicated that counselors had played, or failed to play, a role in their class selections.

> [My] counselor told me to take [distributive education]. He explained it to me . . . but I wouldn't have known anything about it. . . . He just said it was the most important class that I have. . . . [it] would look good on my college references or on a job application saying that I had this training in school.

> It's not like the school or any of my counselors or any of my advisors came to me and said, "Here's this. This is an idea."

While evidence indicated that counselors are influential in student access, they are not always as powerful as perceived. One teacher who regularly sent out informal surveys found that students enrolled in various courses primarily because of other students and not because of counselors. A vocational director came to a similar conclusion based upon results of a formal survey:

> Their parents were their biggest influence, followed by friends. They're virtually tight. The parents and friends are probably the biggest influences as to why they took those things, and then followed by teachers, and then high school counselors in the least. And only 12% of them indicate counselors.

Because counselors are expected to exert more power than they might actually wield, they fall prey to pressures by teachers. These teachers want to influence students themselves, but they place the burden on counselors because of the power that expectedly accompanies their position. Note the frustration in the following statement by a counselor:

> I hear it all the time from our staff. "Oh my, that student was in the top five. Why did he go to vocational education when he left school? Why should he do that? He should be going to college. Why didn't you encourage him to go to college?" Good grief, I'm only one person here that has an imprint on people.

Although counselors evidently affect student access to courses to varying degrees, and although teachers sometimes enlist these power figures to help them influence students, it is difficult to determine the power of their advice when students actually register for courses. When they do convince a student to enroll in a vocational course, it is unclear whether or not the student gets equitable treatment. Teachers' opinions provide only ambiguous evidence since they evalute counselor ability through their own values. Counselors themselves stated they tried to consider individual needs:

> We actually make two contacts with every kid during [the registration] process. And so they have opportunities to ask us at that time, plus they can make appointments in between. So my role in that is to be knowledgeable enough about what's going on, so that I can be of help to a kid.
>
> Guidance services are available to them to discuss how this would affect future career plans or choices so the only limiting factor is the student. I shy away from programming students into a particular course. I do a lot of discussing with a student and how this would tie in with career choices.

Of course, the clarity or bias of the perceptions that shape counselor actions remains unknown. We might assume that accurate perceptions of vocational education and of students' needs and interests help ensure at least some degree of equity in the course selection process.

Two other school-related groups, teachers and peers, might be more powerful than counselors in influencing students to enter a particular course.

Peers. When asked if anyone had encouraged them to take a vocational class, a number of students indicated that friends had said, "Take it. It's fun." Another mentioned that a boyfriend's interest in graphics had piqued her own interest in the same field. But students' sophistication about possible consequences of vocational and other classes varies. We might question whether enrollment based upon a friend's advice is in the best interests of an individual student.

The answer to this question is ambiguous and variable at best. Equity is threatened when students merely succumb to peer presssure to take a course. Of course even inequitable pressures to gain access might lead to equitable treatment once the class unfolds. Because this result is highly dependent on the teacher, let's turn to the ways teachers influence access to their own courses.

Teachers. Because of the current disregard for the value of vocational education, teachers often must rely on their own initiative to promote their programs. Considering a shrinking student pool, decreased financial support, and de-emphasis on vocational credits, competition can and does become fierce and the suggested implications are not always pleasant. A counselor implied that some teachers seem to be forced into "hard sell:"

> Everything is being cut. And every department in this building is fighting to maintain enrollments. . . . If you have fewer kids you're going to have fewer staff, and you don't like to see your colleagues being eliminated. And we've been in a period of hard times. And it's going to get tougher. . . . All of the departments are trying to make their subject areas attractive and trying to attract kids.

Students also detected teachers who aggressively approached them for recruitment. Although the details of how teachers approached students and which students were selected for approach are unknown, the question arises as to how far teachers could or should go in recruiting. One student remembered pressures by a teacher and a friend in the following way:

> Mr. _______ is trying so hard to get me. I didn't want to go to regionals. One of my friends, Karen, signed up for it, registered for it. And Mr. ________ and Karen more or less attacked me saying, "Oh, you've got to do it, Kris. When we go to state it will be so fun downtown at the hotel." And I'm going, "I don't want to do it, I don't want to do it."

While initially this might sound cruel, Kris eventually did perform at the regionals, actually placed, and "felt good about doing it." The outcome of recruitment was somewhat positive. But by initially succumbing to presssure, the student set the stage for further teacher opportunism. What she termed his "pestering" seemed to confuse her:

> [The teacher said], "Are you going on the job next year?" And I said, "No." And he said, "Why not?" And I said, "Well, because I'd rather stay in school rather than going to school for three hours and going on the job." He says, "We've got benefits with this. Monday through Friday." And I'm just going, "Mr. _____, I don't want to go on the job." And this was about a month ago. . . . I probably will not take it, but I keep thinking about it and thinking about the pros and cons, and I don't know.

The question of equity then becomes one of how much recruitment is beneficially challenging to a student and how much is insensitive propaganda. Are teachers attempting to attract students to their courses for student benefit? Several teachers indicated that they were careful to suggest the program to students they expected would benefit, but the balance between student benefits and teacher benefits was not always clear.

Even if some teachers overlook student needs in favor of their own needs, it is not always intentional. When one teacher was told her position would be cut due to low enrollment, the news triggered an active campaign to get enough students on her own. This teacher recalled the immediate emotion which had translated into a temporary shift from usual classroom management:

> What you've seen in the last week is more typical than the first week you were here when I had just heard my job was being cut back. I usually don't let students get by with stuff like I did then. But that really threw me. I'm the sole breadwinner and I just didn't know what to do.

The possibility that teachers are as affected by trends as students are adds new questions about equity. If decreasing enrollments in vocational courses and the consequent "need to survive" affect teacher abilities, how does this affect students' access to the quality of education within classes? What criteria do teachers use in their recruitment efforts, and is it equitable to individuals?

In fact, should good vocational teachers even have to market their programs in public education? We found that some students also told of nonvocational teachers who had tried to create barriers to their enrollment in vocational classes.

> My advisor thought I was just taking it for an easy credit.
>
> Three [teachers] ganged up on me because they weren't too happy because I was getting an A and everything. They said, "You have your whole life to work." Well, how am I going to be able to work if I can't get myself through college?

The interesting fact is that these students had enrolled in vocational classes despite advice to the contrary, but the question remains as to how many students are successfully discouraged. Vocational and nonvocational teachers seem to be "at odds" with each other in a political struggle on a "micro" level similar to that on a state level. Before and at the point of access, then, equity in vocational education is complicated by the competition for students among teachers.

Of course, not all vocational teachers feel pressure to recruit students into their courses. A few even complained that they did not have enough influence to keep away students with behavior problems. Most simply preferred to "save" their influence until getting to know the individuals who ultimately enrolled. One teacher summed it up this way:

> I've taken all students without question, no matter who the [counselors] send to me. I work successfully with all of them. They've seen me take some of the most incorrigible kids and the kids love it down here. There are some instructors that try to get a kid out of their class the first couple of weeks. They give them a referral every chance they get. "Get rid of that bastard." I never do that. I pride myself on being able to work with that kid and keep him.

Thus, the degree to which teachers actively attempt to influence students varies widely. In the final analysis, all strategies could be equitable if they differentially meet the needs of particular students.

Student as Actor

A dynamic relationship takes place between students and the people in their near environment. On the one hand, students consider opinions of counselors, families, teachers, and friends. On the other hand, they are active participants and voices in their school environment--independent "consumers" looking for and selecting interesting and challenging courses. Although counselors, teachers, friends, and families influence their decisions on course selection, students are not mere puppets. They are the final actors in gaining access. Only they can later reflect upon their experience and determine whether access was worth it.

So far the discussion has dealt with influences on students in general, and it already has been implied that all students might benefit from secondary vocational education. But equity is a concept that varies with the individual, and high school is not a homogeneous institution. One young man provided further insight with his perception of the world at school:

> **All the [students] that I know are in the [vocational] class, and they all sit down in the smoking area and I guess the rest of the school would say something. But I don't think it's so bad. But on weekends . . . people down here in this wing in the job classes go to their parties and the people upstairs go to their parties. Every school's like that. It's just how they break out or divide.**

How do they "break out?" Do the divisions get equitable accessibility to vocational education? It seems that this student hits upon a fundamental basis for some of the contradictions and questions we've seen. According to our data, access to vocational education is highly correlated with the "fork" one takes as students divide themselves. Whether this division is by their own choice, or whether it is through subtle social devices, is open to conjecture. Most likely, it is a combination of both in various degrees. Let's explore further the specific divisions and their implications for equity.

The Character of Vocational Education

Rather than believing that vocational education is valuable overall, people's judgments about vocational education vary widely according to the type of student to be served by the vocational class.

What are the criteria that determine these value judgments? Often they are unintentional, they are not prescribed officially, and they are hidden under the ideology of comprehensiveness. But adults and students alike notice what is often called "tracking." A superintendent stated a common assumption that students who take vocational courses are different from those who take college preparatory courses:

> **With a few exceptions, a student taking a series in home ec or a series in industrial arts or a series in agriculture more than likely is not going to go to college. He may go to some kind of vocational school, but it is pretty unlikely that**

> they'd go to college. . . . We try to steer kids that have the college goal into college prep places where they'll have a better chance of success in college.

Given the national emphasis on the "academics," it was no surprise when we found that college bound students are commonly directed towards advanced levels of science and math rather than basic or advanced vocational courses. Although most administrators, teachers, and counselors noted that many types of students take vocational courses--college bound students, those with specialized interests, and low ability students--they agreed that the proportion is weighted.

Two general divisions were described as the "college bound" and the "nonacademics," but in vocational courses the nonacademics far outnumber the academic students. The implication is that the college bound have less opportunity for access to vocational courses than those not planning college. Is this equitable? In order to explore this question, we will first look at what happens when access is gained by high ability students.

A Smattering of Scholars

One common motivation for access to vocational education by the college bound is to gain skills that will contribute knowledge to their future fields of study.

> It is giving me the experience that I'm going to need. . . . I love it. I wish I wasn't a senior. I'd take it again. The college I'm going to has it there. So I'll probably take it there too.

Adults in the school also believe that students destined for technical fields would benefit from supplementary courses in vocational education.

> Some of our kids who are going to go on in the technical fields would do themselves a great deal of help by taking some industrial arts courses. I couldn't imagine anybody saying, "I want to be an engineer" and not taking at least three semesters of drafting. I can't imagine anyone who says, "I want to go into business" and not take all of our courses in business.
>
> One of our board members is a chemist and never really had a great deal of practical application type of things through school. When he entered the university, he was very academically oriented and did quite well. But when it came to a lab situation, it took quite a while before he really caught on to how to use the tools and the equipment and the labs to make it effective.

A second admirable motivation to take vocational courses is to gain skills to work one's way through college. A vocational director gave a unique example of this strategy:

> We've got a young lady out in welding. . . . She's an excellent welder, but she wants to be a veterinarian. The only reason she's enrolled in the welding program is to earn income to get through the veterinary science program at the University of Minnesota.

Other functions of access to vocational education for the college bound include "relief" from an "academic" load and improvement of personal life. For example, electronics and industrial arts were considered valuable when students become homeowners. And home economics was thought to contribute strength in future family life.

Thus, access can mean a number of things to the high ability student. It might provide skills for a college major or a needed job to pay one's way through college. It could mean skills and knowledge that will flourish into hobbies, money-saving efforts in the home, and deeper insight in human relationships. It might simply mean a "breather" from the pressures of physics and calculus.

But access to vocational education definitely means something unique to the college bound group. First, access to vocational courses is less likely. A counselor pondered the reality that the top notch students were not getting access to vocational education:

> I would suspect that if there is an area or category of student that is vocationally slighted today in our school, it would be the very, very top. Those kids that are going on to major in high tech. The kids that are taking two years of advanced math the same year. We aren't doing a lot vocationally for those kids. We're providing lots of things at the other end of the spectrum--kids with learning disabilities and kids that may be going on to a vo-tech or college. But how about the kids in the top 10%? What are we doing for them? What kind of high tech exploration or high tech kinds of programs are we offering some of these kids? And maybe we need to look at that area. And if we are going to do that, we're going to need somebody with some visions, leadership.

This counselor is assuming that vocational education would be equitably challenging and beneficial to high ability students, but is the assumption correct? If it is not, then the lack of access is equitable.

If the assumption that each student would benefit from existing vocational education is correct, then other reasons for denial of access must be considered. Increased academic requirements, scheduling constraints, and external pressures to take specified college preparatory courses are potent "infringements" on all students' access to vocational courses. If access to vocational education is necessary to equitable education for the scholastically gifted, then the system which prevents it needs some dramatic changes. Listen to why a home economics teacher thinks vocational classes are necessary for all students:

> **I think right now, with the extreme emphasis on required subjects, we're going to lose out. We're losing some of those students which bothers me because I think we have some things to give all students. . . . You can teach them all the math and science, but if they're not feeling good about themselves or where they're at, I'm not sure that all the math and science is really going to be good for them.**

Of course, individuals who believe that vocational education adds equity to the education of high ability students must look to the qualities offered in their own programs. Only then can they determine how vocational education does or should contribute. What happens when we switch our attention to the students who more easily gain access?

A Number of Disciples

By the time they reach high school, many students have already developed well-defined skills and interests. Qualities intrinsic to vocational courses hold an attraction to many of these students. This interest then becomes the magnet that draws a pluralistic collage of students into a class--for either vocational or avocational reasons. An agriculture teacher summed up his courses in the following manner:

> **We'll have some that just have an interest in agriculture. Some of them are going to go on to college. Some of them go on to vo-tech and some of them just don't go anywhere. Some of them just have trouble getting through school. So it's kind of a broad range. But they've all got something that draws them to agriculture or the land.**

A student in the agriculture class added that students who were reaping the most benefits "really want to learn and are intending to farm someday. They are really into it."

Vocational interests. These immediate interests in content often are related to plans for future occupations. Within this group are students who plan to study a vocational area in college and students who do not plan to go to college. For example, agriculture teachers can readily point out which of their students plan to farm, which plan to go into an agricultural program of study at a postsecondary vocational institute, and which plan to study agriculture at the University of Minnesota. These disciples of vocational education are the content of rewarding success stories. The following excerpt from an interview with a business education teacher is evidence:

> Sometimes you'll get good A students who are very sharp and I can think of an example here where I had a girl. . . . She finished high school. A straight A student. A and B work. Strong A and B. And she went on to Donaldson's. Worked there full time. Then after a year she started going to Normandale [Community College] part time. Then after letting the company pay for alot of her tuition, then she finished up at . . . St. Cloud [State University] and now is in marketing and sales. . . . And then I had another fellow. . . . He's one of the few boys I had. He wanted to be an accountant. So I got him a job at the Diary Queen. He was working in the accounting department, and today he's a CPA for General Mills. . . . And then another fellow that I had--I had him working for an insurance company. And they had him do a variety of things. He had a lot of skills. Office skills. And he went on to school and now he's working for a big insurance company. But he knew what the insurance business was like. He got that exposure.

Handy interests. While the attraction might be content that satisfies an interest or leads to knowledge of work roles, the opportunity to work with their hands also draws students into vocational classes. Counselors noted the following:

> I would guess that the ones that take more of the vocational type courses perhaps would be lower on the academic aptitude ladder. . . . Kids that cannot untangle the advanced alegbra problem in their minds can be very, very skillful with the shop tools and the metal tools and what not.

> Well, obviously the farm boys are served through the ag area. I guess people who are more mechanically inclined that have . . . more interest in using their hands than their minds in an academic sense . . . are probably the ones who are served here.

When one teacher was asked how students performed on tests, the answer was, "Very poorly. They don't study for the tests." When asked how students do on the machines, she stated, "Great. They love it." The strikingly different answers underscore the particular interest in working with one's hands. Students also pick up the mind-hand dichotomy. One student succinctly stated, "It's more of a skills class than a mind class."

The separation between the "thinkers" with academic aptitude and the "doers" with "talents of the hand" appeared relentlessly throughout our interviews. It is interesting that many conceptualize the two parts of the dichotomy as mutually exclusive and not integrated.

Two distinct types of talents potentially could meet on equal terms, each receiving equitable treatment related to individual differences. Yet comments consistantly revealed that a hierarchical ordering places the "thinkers" above the "doers." Now the drama provokes especially bothersome questions.

A Bunch from the Lower Half

The distinction was sometimes explicit and sometimes implied, but the doers usually were labeled the "lower" group.

> **There's a class system in our society if we want to admit it or not of the thinkers and planners versus the doers. And many people think that there's a higher status of being a thinker and planner than there is being a doer. And yet that's the majority of our society--it's comprised of doers. So I don't know which is the cause and which is the effect, but I think somehow we have to come to grips with that--that people do things in the world for a livelihood and that's what your occupational and your vocational programs are about--teaching people how to do things with the knowledge that they've gained.**

Perhaps this pervading distinction prompted several to sum it up briefly: "You just don't get the cream of the crop." The following comments ring of a theme we saw earlier--those who gain most frequent access to vocational education are not the "thinkers." Rather, they are those with lower intellectual ability--at least demonstrated ability, even when they have special interests in vocational content or skills.

> **This isn't true of whole departments but by and large, vocational education now serves students who are in the lower half of the class. And there are exceptions to that. We've had kids that are #1 and #2 in the class that will go on and take a vocational course like machine training or something like that during their senior year. But by and large you'll find that either they're not the most gifted students or they're not motivated enough to study.** (Superintendent)

> I would say it is serving the middle half of the academic or the lower, middle to lower. The students who are not planning to go to college. (Counselor)
>
> I do have a few that go on to college, but not that many. A lot of them go to vocational school. I have a few that are taking the science and math courses. But 100% of the people can't do that. They don't have the aptitude. (Teacher)

Furthermore, many agreed that access to secondary vocational education was most essential for "nonacademic" students who plan careers that do not require college.

> Two-thirds of our kids don't go on to college. They're not going into any form of higher education. I think they need vocational education. I think they need it very badly. (Principal)
>
> High schools evolved from academies. When we have a concept of public education, the entire public doesn't fit into the college mold. A lot of the kids in our school go no further than high school. If they're going to be builders, unless they learn it on the job, they're going to have to have some exposure in high school. If they're going to be homemakers, they have to have that exposure in their own home or here in the high school, and the same thing with agriculture. This is probably the only formal exposure some kids will get. (Superintendent)

Does this image relate to equitable access? We've already given evidence that the national focus on college preparatory classes has prompted less financial and human support for secondary vocational education. On the one hand, we might hypothesize that this bias inequitably discriminates against those who do not succeed academically but do succeed in vocational courses. They are told surrepitiously that vocational education is not as valuable. Those who gain access are automatically labeled as "not as valuable."

On the other hand, if various programs receive support and resources necessary for good quality, the implication is that all abilities and interests could be served equitably. For example, a principal said:

> I think quite frankly that we have two tracks. We have the college bound and we have the vocational bound and then we have that small group of kids who are neither. . . . For the most part both those kids that are in the college bound track and those kids that are motivated in the vocational track have their own purposes and those are very successful programs.

Of course, in reality divisions are never clear and "types" blend. Access to both "stages" is sometimes needed to clarify confusion about future directions or to open up unexpected doors to the future, and low academic ranking of many vocational students is not always indicative of potential ability. One counselor stated, "I think the ability of the kids is a little better than their rank and grades." A vocational director told us about a "happy ending" for a boy who had received D's all along until he got an A in a vocational class:

> The difference is that a kid for the first time found something he wanted to do and did it. The ability was there. That student would have been rated in the low 50%. If somebody had succeeded in getting him motivated, he might have been in the top quarter of his class. He had the ability.

Regardless of potential academic ability, access to vocational education was deemed more valuable and more open to a distinct group of students--those with vocational subject interests, interests in working with their hands, and lower academic school success. But so far we've been investigating a fairly motivated group; however, all students who gain access to vocational education are not.

Many of the "Sluffs" and the "Difficult"

Students who want to "take it easy" or "just get by" were viewed as another type who gain frequent access to vocational courses. Why might the nonmotivated--so opposite from the disciples--gain relatively easy access? A superintendent gave the potential explanation that schools at large need a "dumping ground:"

> Vocational education better be serving the kids. Realistically, I think it also serves schools. It provides a place to put some kids who chose not to function or are having difficulty functioning in some of our more advanced courses. . . . That ought not be the basis for offering the programs, but it certainly is in the mind of a lot of schools.

The fact that a principal commented to a vocational director, "Now I've got a place to send all our 8-balls," further suggests that schools condone and welcome vocational courses as places for "misfits."

Certain teachers' low expectations also might be blameworthy. A principal stated that some vocational classes might be attractive if some teachers didn't defeat the possibility:

> We should be trying to attract some other students across a larger cross-section in the total student population. Rather than just dumping people in there because they either have low ability or no motivation. And my suspicion is most of them are

> nonmotivated. It's a nice place to spend the hour and sit there with your little piece of sand paper and sand for 55 minutes and put your project back and not ever have the teacher look at it.

If some teachers really are as lax and uncreative as the principal went on to complain, they might "deserve" the same type of student. Perhaps other teachers "give up" trying to make classes interesting. When classes are filled with problem students who were "dumped" there, successful teaching indeed would be difficult. Some students readily admitted enrolling in vocational classes for easy credits. A student who got out of school to go on the job had a simple reason for taking on-the-job training:

> The only reason I took it was to get a credit for working. I like to make money. That's about the only thing. Plus, you get credit for it.

On a more positive note, many teachers expressed sincere commitment to working with troubled students. They seem challenged by unique complexities that stem from this particular group of nonmotivated students.

> I guess my feeling is that if you can motivate that kid somewhere along the line, and find something he's interested in along the line, then maybe he's going to become a better student all over. And that's what I look at--trying to find something. And it could be the craziest thing. It could be maybe wildlife. It will turn one kid on and that's all he's excited about. And he just goes nuts over that. And maybe that helps him stick with it and stay in the program.
>
> I'm not saying it's an easy job. Most of my kids don't need the credit anyway. They don't need to take my class--so you don't have that motivation at all. That motivation takes care of some other things like discipline problems. . . . The only thing that would discipline a student in my class would be either his respect for me or his interest in the content area.

Some of these efforts to motivate students are successful, indicating that even the "sluffs" get equitable treatment when they are fortunate to get the "right" teacher and class. A few students even told us that they had become captivated and challenged by a vocational class which they had selected only because they thought it would be easy; their expectations proved faulty, they admitted.

Students also detected differences among themselves. One student in an "on-the-job" training program positively compared herself to others in the class:

> There are some people in that class that just take it to get the heck out of school. They screw around. They do it to get out of class. And to get out of other classes. It's as simple as that. They want to sluff. But I took it because I'm not going to sluff. Ya, it's nice to get out of school early, but I'm working my tail off.

The question remains whether norms dictate students' expectations of vocational education or whether the very fact of access by unmotivated and difficult students contributes to the status. Either way, the unflattering pairing of problem students and vocational education points out issues concerning equity. Vocational educators must ask themselves if they allow problem students to "get by" and if they honestly attempt to involve them. Public schools must be scrutinized for possible systematic routing of "undesirable" students into vocational courses.

In summary, students who are welcomed into vocational classes include the college bound, the disciples, the "handy," and the work- or postsecondary education-bound. Even students who initially enroll to "take it easy," but who later become interested, help paint a pleasant portrait of vocational education.

Yet there are some "flaws." Social opinions, problem students, and low ability students tend to reduce visible value of vocational education; whatever value exists within vocational classes tends to become obscure. Meanwhile, a student's reputation as belonging to a particular category affects his or her access opportunities. Unfortunately, a reputation is not always an accurate portrayal of the individual. The perhaps tragic result is that students who might benefit from access never get the chance to find it out; those who might not benefit either themselves or the rest of the class get sorted in.

But there is one more type of student who benefits from vocational education. Special needs students also were said to gain ready access.

Most of the Special Needs

Experience with vocational classes is thought to provide the special treatment warranted by special needs students. A counselor summarized a belief common to administrators and counselors:

> The shop people and the vocational people are very cooperative in allowing these [special needs] people into their classes where obviously putting them in the chemistry class would be a

> total maze to them. They work them into the cooking classes or sewing or shop classes, horticulture. They get exposure to what they need. It is a great benefit to them.

Although most comments weren't laced with what are now outdated terms for home economics and industrial arts, the belief that special needs students can handle these "hands-on" courses seems prevalent. Special education teachers seem to agree that vocational classes are important for these learners. A counselor stated:

> We have disabled, handicapped kids. Their teacher really got appalled with the idea of cutting out vocational education for these kids. . . . What do you do with those students? Do you herd them all through chemistry, physics, and math?

The dumping ground notion also reappears with the special needs group. Certain vocational courses become stereotyped as the ones for special needs students who cannot succeed elsewhere.

> There is a tendency [for some classes to have more special needs student], and I don't know how to overcome it. Quite often you'll hear the statement, "When they don't fit anywhere else, they come in horticulture." That's been tough. . . . Counselors, teachers, and even the special needs teachers. It's almost a subconscious or unconscious thing that teachers will start thinking that way. Maybe it's because a pattern has been set.

The assumption that students who cannot succeed in math will succeed in vocational education is noteworthy. Furthermore, the implied reason is that vocational content is less complex and difficult. True or false, the assumption leads to access, and vocational teachers must think about their roles in educating the special needs group. A vocational director generalized that teachers sometimes feel overwhelmed with the extra demands:

> One concern that I get from some of the teachers is they get what they consider a rather high proportion of special students. Only in a few cases do they provide any sort of special help with that. We have technical tutors in about six or seven of these vocational programs, who are there primarily to serve special education students. Just recently a supervisor of special education was talking to me about the teacher of one of our high schools who does have a kind of tutor, but the teacher is saying he gets a rather high number of kids who are special--more than he thinks he should be getting. He thinks he is getting more than the special education teachers in the building. One complaint is that the tutor frequently doesn't

> know who's coming until sometime after they've been in the class. So there is a problem in communication to make sure that those things are working.

Even with the extra demands, we found that most vocational teachers were willing and eager to help. Although they considered vocational courses to be very difficult for these students, they felt gratified when students made successful strides. For example, an industrial arts teacher discussed a cooperative effort which had generated success with several deaf students:

> With the advantage of having an interpreter for the deaf and a special needs educational assistant, we can help those kids and work closer with those kids that would have the difficult time of getting through a program. The most difficult part of the program is that these kids cannot read . . . or work with simple math. With Tom (a deaf student) we use an interpreter. They get much more help. They wouldn't make it otherwise. . . . One of the deaf kids in the afternoon classes is going to a vocational-technical institute in printing. He'll be the third deaf student that we've had go into printing.

While this instance highlights potential successes that special needs students find in vocational education, it simultaneously negates the belief that success results because vocational classes are easier. One teacher made the point that success depends a great deal upon extra specialized assistance:

> They do well. But if I was by myself and didn't have help, there is no way I could handle it. They wouldn't be in the program. They'd never get past the beginning classes because I wouldn't have time to work with them.

Ironically, the special needs group gains access to many vocational classes without necessary math and reading skills under teachers who often do not feel adequately prepared to work with them. Although this situation provides hardships for vocational teachers, they seem proud of the students who overcome handicaps and they are clearly grateful to others who help students adapt the course material to handicaps. What does this imply about equity?

Because vocational teachers commonly do not have the necessary background to teach special needs students, we would expect it to be difficult for them to meet each special requirement appropriately. This indicates that cooperation with experts is often necessary to equitably help these students adapt vocational subjects to their needs. Without help, vocational teachers must spend extra time trying to analyze students and adapt materials. Furthermore, time is

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taken away inequitably from other students if teachers have perplexing problems and numerous special needs students.

From special needs to sluffs, from college bound to low ability students, vocational education must meet the widest range of needs. Maybe this is why one counselor had trouble defining a purpose which was served by vocational education as a whole:

> I can't think of vocational education as an umbrella because I see it as specific programs, and there are vast differences.

When we asked what equity meant to individuals, many associated the concept with sex equity. Thus, likely candidates for access to vocational education face further complexities of equity as they divide into particular vocational subject areas.

Sex Equity

Vocational teachers indicate openness and eagerness in offering courses to both sexes. A counselor thought vocational courses were in a prime position to break traditional boundaries:

> Women and men can do a variety of different tasks, and you don't have to limit yourself based on what has gone on before in terms of stereotyped education and career types of experiences. Women can be auto mechanics. Men can go into home economics and find very worthwhile types of careers. I think vocational education helps promote that.

But even overt willingness or encouragement does not ensure the action. Most of those we interviewed complained that stereotyped divisions remained.

> You always get into the thing of sex: Do we get enough girls into our agriculture or mechanics type classes? . . . There is no constraint. They can sign up if they want and they're encouraged to do so. We just haven't been very successful. (Principal)

> When students come to choices of electives, it's pretty traditional here. (Counselor)

> Let's face it. I just got the evaluations we had in February. . . . Almost universally the evaluator was complaining about the fact that in junior high there were quite a few boys in home economics, and in senior high there just weren't. I guess you can complain forever, you can make it available. You're not going to change what the kids do. (Director)

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But do male-female ratios in classes mean inequity? Even with continuation of traditional gender norms, some progress was expressed by our informants. A counselor believed that vocational courses promoted slow but gradual progress:

> I think the [vocational programs] do a marvelous job for providing opportunities for all our students. I suppose you could go into our home economics sections and food sections and say, "Gee, there are more girls in here than there are guys--why is that?" But on the other hand, there are guys in there, and there are more guys in there today than there were five years ago.

Still, modern social notions that males and females have a right to pursue whatever they want are affected pointedly by lingering sex stereotypes. Bias still covertly floats throughout social life and this affects vocational education--perhaps because it originated when traditional male and female domains were more accepted as givens.

> Society's acceptance of a woman who says she is a mechanic is probably not there. That is the kind of thing I don't think you change in one generation. It may take four or five generations to eventually work out public acceptance. (Administrator)

> I was watching The Birds by Alfred Hitchcock, a male producer and director. About 20 birds were eating a man up, and these three helpless women were just standing there, doing nothing with their mouths open and a glazed look in their eyes. And that's not realistic. Years ago people just accepted that sense that women don't have presence of handling an emergency or they can't think of something to do. All those subtle little things that we find in movies and books and magazines. . . . I think that means making boys and girls aware of and catching those little things. (Director)

It is not surprising that some parents echo similar social attitudes. One female student mentioned that her father was very pleased that she had taken a model office course because it was a good occupation for women. Another female, one who had crossed traditional boundaries to find subsequent success in auto mechanics, recalled mixed parental blessings:

> My dad encouraged me. My mom didn't like the idea too much. But she got used to it after a while. . . . [She wanted me to be] anything but. "It's not proper." But she's used to it now and she doesn't mind.

This student not only had to convince her mother, but she also had to contend with peer opinion:

> I get a lot of teasing . . . "little grease monkey you." But a lot of them, I think, were impressed that I had the guts to take it.

Here a female joined a male-dominated arena and found it to be a wise choice. But what happens when a male enters a traditionally female area? One male who had enrolled in home economics stated that other boys thought it was "kind of girlish." Although he too initially held this attitude, he was later convinced that boys benefited from the class: "I think it really helps. It will help you later in life to socialize more."

Individuals who exercise their own rights to gain the knowledge they desire are perhaps the most promising signs that equity "lives." Not only did these two students gain knowledge that they thought was helpful, but also they imply that they gained satisfaction and personal understanding about "breaking" stereotypes. The most troublesome problem lies with those students who would like to explore an area but don't act upon that desire. Throughout this chapter, we have depicted how social norms seep into vocational education. Gender norms are no exception. How many students enroll in sex-stereotyped classes simply because of lingering social and parental pressures to conform?

Questions and Implications

In conclusion, a vocational class is a pluralistic stage within the high school world. Because it is overtly accessible and important to all students, ability levels range from the college-bound scholars to the learning disabled; interest intensities range from devotional to indifferent; and gender interests are both traditional and nontraditional.

However, in practice the composition of each of these groupings is skewed. When we asked who vocational education should serve, the emphatic answer was, "All students." When we asked who actually benefited, middle- and low-ability students were emphasized.

Furthermore, people believe that various groups should enroll in vocational education for different benefits. Students bound for postsecondary vocational schools or employment after high school are expected to learn essential knowledge and skills for their occupations. College-bound students are expected to gain concrete skills and knowledge that will contribute to future college success and avocational needs. Access by special needs students is considered important to their chance to "manage" a regular high school class. Vocational education promises to break boundaries of sex stereotyping, even if at a gradual pace.

So the general thinking goes. But are these perceptions accurate? If so, many questions arise about the sorting of ability levels. Is vocational content really easier for high ability students, or is this a myth? Is it easier for the special needs students? Why or why not?

Perhaps the question most pertinent to our study is this: Do individual students in the variously classified groups gain equitable access to secondary vocational education? There are several ways to structure the answer.

Let's first adopt the assumption that vocational education should be for every high school student. Every student should then gain access to appropriate vocational courses. Yet it is becoming increasingly difficult to offer a variety of quality courses. We would conclude that general trends--decreasing student population and funding, increased "academic" graduation demands, and a faulty or neglected image--are reducing the opportunity for equitable access for all students. Furthermore, how does one assess which classes will best serve which individuals?

Let's now assume that vocational education is more beneficial to certain types of students. How do these students gain access to the most equitable number and kind of vocational classes based on their unique needs and capabilities? There might be a self-selection process whereby students who will benefit from particular courses inevitably get access to those courses. We also found evidence that the selection process might be a function of real or imagined beliefs and social organization. Students live within the arrangements of their environment, and structural mechanisms and human influences filter them into certain partitions of the whole environment. People who influence students have assumptions and expectations of their own which may or may not result in equitable advice.

Another dilemma arises within vocational education classes themselves. How can a vocational teacher equitably treat a class comprised of extreme variations in ability and interest levels? Do the low ability students prevent the top scholars from receiving challenges? Does the top take away from qualities that might better enrich the others? What effects do "sluffing" or problem students have on the rest of the group, the teacher, and vocational education itself?

Expanding to the school level, yet another dilemma exists. It seems that schools themselves feel a need to "dump" certain students that don't conform to expectations. Some individual students seek that very same type of place. Is it ethical to make that place vocational education? Since the "dumping ground" characteristic seems to have no admirable qualities, might action be taken so there is no need for such a place?

These questions point to a need for more investigation into some disturbing notions of who gets access. Access is not a simple act of walking in the first day of class.

Chapter III

Treatment Within Vocational Education Classrooms: How Equitable?

Once students gain access to a vocational education class, equity becomes important as we consider how students gain access to the knowledge provided in that class. What happens once students become a part of a specific vocational education class? How is equity practiced? This chapter focuses on the numerous episodes which take place each day in vocational education classrooms and describes how equity is "played out" in these episodes.

Setting the Stage

First, we will consider the atmosphere and structure of vocational education classrooms and how both affect equity for students. Second, we will focus on the practices which lead to equity and the nature of these practices in the vocational education classes we studied. These practices include developing positive feelings about the class, meeting individual needs, promoting self-esteem, and exposing students to relevant and up-to-date equipment.

Egalitarian Atmosphere

As we observed vocational education classrooms, we sensed a relationship between students and teacher which is egalitarian or democratic in nature. Teachers took the role of a coach or facilitator in a classroom. A teacher may be on hands and knees under a desk fixing a typewriter cord or coaching a student through the intricacies of making a specific decoration for a cake.

Teachers also involved students in decisions which need to be made. For example, a teacher in a foods class asked her students to make the decision about whether or not certain workers should eat first to facilitate the serving arrangement. Students were encouraged to express their opinions and feelings and then make the final decision. An agriculture teacher asked students to provide suggestions as to the kinds of agriculture classes which should be offered next year. This same teacher referred to the equipment in the laboratory as "their" equipment, implying the equipment belonged to the students.

According to the students we interviewed, they also felt they have a relationship with their vocational teachers which resembles a friendship. Students expressed this relationship in the following ways:

> [He] isn't like a teacher. He's more like a friend.
>
> In this class you are a person; in others you are a name and a grade.
>
> It's more like a job, a real life experience. The teacher doesn't make you feel like a student.

This democratic structure also affects the relationship students have with other students. In addition to working on projects together within the classroom, the students and teacher often plan social events outside of class. One distributive education class went out for breakfast regularly. The purpose of the outing, according to the teacher, is for the teacher and students to get to know each other better and to discuss problems and concerns.

Psychologists tell us that we all have a strong need for love and affection which results in a feeling of belonging. Getting to know each other well and showing concern for each other help to create that sense of belonging. Although we usually think that these types of relationships develop in families, they also result in other groups. Students in the classes we observed often talked about this feeling they have of belonging.

> Instead of the person sitting next to you being a fellow student, it's a fellow friend. And you can talk to them, you know? You may not like everybody, but you always feel, in a sense, you love everybody in class. It's like a little family. I don't know. When I come into this class it's like coming home.

Students often are working together on projects. Although students have varying degrees of responsibility on any project, every person must do his or her part to make something work. This cooperation also contributes to the sense of belonging described above. One student in a graphics class explained how even the less popular students are brought into the group:

> At first I thought that I was going to come in here and I wasn't going to get along with anybody because I didn't really know that many people. And I came in here and I just started getting along with everybody, and, I mean, it kind of seems like everybody is a big family in here. When something happens, you know everybody else knows about it and everybody else cares. Even if it's a kid that's not really popular. Like Joseph, when he got his finger stuck in that press. He's not really popular with a lot of the guys in here. I mean everybody cared. Everybody wanted to know what was going on. And I went up there and saw him after second hour and there were two or three other kids up there seeing him. So you know, people, everybody sticks together in here because everybody knows you have to or else nothing's going to work.

The students we talked with often referred to an "openness" which develops as a result of the class structure and atmosphere. One student said he feels there is more opportunity to discuss and express one's views in vocational education classes than there is in other classes. Another student said that her experience of expressing herself in this class helped her to be more open in other classes.

There appears to be almost no topic which cannot be discussed in the classroom. For example, in a family life class students asked their teacher what she would do if her teenage daughter became pregnant. Teachers we observed typically responded to these questions very "matter-of-factly" which further encourages students to be open and share their concerns and questions. Also, students and teachers often joke with each other. For example, while students were working in the laboratory, a teacher teased a student about the resemblance between his hair and a Brillo pad. The student laughed and went on with his work.

Varied and Flexible Orchestration

If we were to make a brief visit to vocational education classrooms, here are some examples of what we might see. We see in an agriculture class that students learn through lecture and discussion which involves give and take between teacher and students about various crops and how to plant and care for these crops on their own farm. These same students on another day might be in the laboratory working on engines or learning welding techniques. Everyone could be congregating around a student or teacher who is giving a demonstration, or students might be working cooperatively or individually on projects. The teacher would frequently be moving from group to group or student to student to answer questions, give advice, or make predictions about the latest school sports events.

As we move to a business and office class, we hear no human sounds but rather must speak over the various office machines such as typewriters and calculators. Again there is little or no lecturing but, rather, activity is centered around projects or other learning experiences. The teacher is available for help and generally moves around the room from student to student.

We go on to a graphics class where students are working on "jobs." Again, various machines are operating and the noise level is high. To an outsider, it is difficult to make sense out of what is going on. Some students are running off thank you notes and others are packaging them. Some students are working on a computer, and still others are working at drafting tables. As they work, students are talking about what they are doing as well as other issues. Two students in these classes describe their experiences.

> It changes from day to day. You never know what to expect. And people ask, "Well, what do you do in ag class?" And it's so hard to find just one thing. Like when you take botany, you know, leaves or something. And here, we go over this or we go over that and have a good time. And if they ask, "What did you do today? [We can say], we've done a banquet. We do a lot of stuff."

> Yea. It's quite different but I'm not sure how to explain it. Like in English and history you more or less sit down and you just do the same things every day. Whereas here we have something going on all the time. There's something different going on.

After this brief visit to three classrooms, it is evident that vocational education classes have a flexible, changeable structure because curriculum usually centers on specific projects which often involve a laboratory setting. Students are typically working on separate projects or separate aspects of one larger project. Students finish at different times, and, therefore, structured, time-bound curricula are not utilized.

Teachers also change learning opportunities to meet the specific needs of students in a particular class. A home economics teacher described it this way:

> I have maybe a textbook for the class, but then I kind of see what other textbooks talk about. Then I try to look at the students and maybe what the students need and what I think might be most beneficial to them. I also try to look at what

> else is being taught in the school. I was going to do something but the kids said, "Well, I've had this." So I thought, "Hey, then I don't need to repeat that. Let's go on to something else." Sometimes I'll feel the kids out like that or ask them if they've had something. Sometimes I even go to other teachers. Next year for a textiles class I went to the art teacher because he has a craft type thing and I said, "What kind of things do you do so that we can either work together on it or not overlap?"

We experienced how this home economics teacher put this flexibility into practice as she explored aspects of childbirth with her class. The discussion went like this:

> Teacher: "A birthing tank is when the baby is born under water in a tank."
> Student: "Under water? Won't it die?"
> Teacher: "Well, it will if you don't take it out. I don't know how much background you have."
> Student: "Try us."
> Teacher: "Okay."

The teacher went on to explain about the placenta and how the baby depends on it for its livelihood. Although this is not what she had planned for the day, she allowed students' interests to dictate the change.

An industrial arts teacher provided a similar rationale for determining curriculum. He said he always begins with an outline of instruction but adjusts it to meet the needs of the particular class of students he is teaching.

Summary

The egalitarian atmosphere and the varied and flexible orchestration are consistent with the goals of vocational education curricula, and this makes these classes distinct from other classes in the comprehensive high school. One might argue that this atmosphere and structure are evident to a certain extent in other classes--or that they could be a result of individual teaching styles. However, both teachers and students volunteered these characteristics as attributes which make vocational education classes different from other classes.

Students Are in Danger of Learning

A goal of all education is to appeal to the interests and strengths of all students--to help all students achieve their potential. How can we facilitate students' access to knowledge? How do students with differing aspirations, abilities, and interests all have exposure to the knowledge provided in the classroom in a way which is beneficial to them? To be "in danger of learning" is to have barriers removed which would keep a student from having access to the knowledge provided in the class and to encourage an interest in the learning experiences in the class. Here is where equity comes into play. The stage which has been set in terms of the atmosphere and structure of vocational education classes is conducive to providing equitable experiences for students. In addition, there is evidence of some specific practices which enhance equity for each student in vocational education classrooms.

The discussion which follows is a description of equitable practices and the nature of those practices in the vocational education classes we studied. The specific practices which enhance students' access to knowledge are: developing positive feelings about the class, the teacher, and learning; meeting individual needs of students; promoting self-esteem; and exposing students to relevant and up-to-date equipment. These practices do not include all of the ways in which equity in vocational education might be achieved, but they emerged from our study as the most obvious.

Positive Feelings About the Class, Etc.

When we asked students what they thought of their vocational classes, the typical first response was that these classes are "fun." Although this response may elicit thoughts that these classes are less rigorous or filled with games, this is not exactly what the students meant when they said that these classes are fun. Many students said these classes are fun because they learn things. Other students said they are fun because they don't involve a great deal of paper work. Others said these classes are fun because they are interesting, referring again to the diversity of activities in any given class. Some students talked about the youth organizations which helped make the class interesting. One student in a business and office class described it this way:

> I think the best part is being an officer in this chapter. It's been fun. We've been able to go to the career development conferences where we learn about different careers and business and everything. This was back in November. Then we've gone to these conventions which were quite fun and educational, I guess.

A student in a course which involves on-the-job experience described it like this:

> The job is really nice because I can leave school and go to work and have my evenings off and my weekends off, and I like business and it's gotten me to go into a major of business in college next year. I think it's interesting--typing and everything, so I think it's fun yet educational.

One student pointed out other benefits of a vocational education class:

> It's fun, educational, you learn a lot, you eat a lot!

For many of the students we talked with, the positive feelings they have for the class affect their feelings about learning. Here's how one student in a family life class expressed her feelings about this relationship:

> I actually took it because it was going to be a senior sluff class. Lay back, take it easy. But then once you get into it, like the marriage, it's really getting interesting. Because you learn so much. You think, "Wow, that's me!" and, "That's not me." and then over here, "This is me, too." But then you figure, "Well, no, that's not really me." And you just learn a lot about, I learned a lot about marriage because I always thought marriage will be a breeze, but it's really not.

Another student put it this way:

> I do better in this class because I'm interested in it. I think it's an easier class because I'm interested in it.

Several teachers we observed were very purposeful in making the class enjoyable for students. One teacher clearly stated that some subject matter is just not as interesting as other subject matter and that he would teach what needed to be taught. However, one of his priorities is to make the class as enjoyable as possible.

The students also identified the teacher as an integral part of their feelings about the class. Because of the egalitarian nature of vocational education classes, students seem to know their vocational teachers better than others and have positive feelings towards them. Students also spend more time with these teachers because of taking several classes from the same teacher and because of the larger blocks of time which some of these classes require. One student said this about his teacher in a graphics class:

> I've known him for years. The other teachers I have for a semester.

It is evident that the feelings students have for the class, the teacher, and learning are related, but the specific dynamics vary. In some cases it appears to be the teacher who makes everything interesting and, thus, easier. In other cases, it is the structure and atmosphere of the class which facilitates learning because they are consistent with students' learning styles. Most students indicated that they recognize differences in how they feel about vocational education classes versus other classes. For some students vocational education classes provide an opportunity to develop--for the first time--positive feelings about learning.

Students' feelings about courses affect their motivation to learn. For some students, access to knowledge removes the barrier of apathy. Students, teachers, administrators, and counselors all made reference to "turning kids on" in vocational education classes. For some students it means learning via methods which are different and exciting. For others, it is doing something which is relevant to their lives and, in their perceptions, has a purpose. A student in a graphics class was motivated to do as good a job as he could because he saw this sense of purpose:

> I'd describe it as a class where you do a lot of work, but it's not hard work. It's more or less work you want to do. You know, there's always a purpose to what you're doing. Either you're putting something out for yourself or you're putting something out for someone else. So there's always a purpose to do the best you can. . . . Not to just look at certain things but to do the best job overall.

This same student went on to describe the projects as a challenge once he got into them.

An agriculture teacher described the way in which youth organizations provide an opportunity for students to get turned on. He said that the Future Farmers of America (FFA) organization provides opportunities to motivate students because it provides them with additional opportunities to excel, and it helps students recognize and develop abilities which they don't realize they have or could develop. A student in an agriculture class told us about how she became inspired by a student organization. She had been involved in the local FFA organization and after realizing that she possessed certain skills, she became involved in the organization statewide and nationally.

> And the first time I went to a convention nationwide, I was just taken away again. I wasn't there 10 minutes and the energy just inspired me.

Teachers, administrators, and counselors believe that this motivation has an impact on more than the immediate classroom or coursework. Here is how one principal talked about this motivational carry-over:

> I see kids that are taking the vocational track program as being motivated for school in general because of those classes. I see that as essential. I think that they probably do better in their other classes because of it.

A vocational education director reiterated this feeling:

> I hope it teaches the basic skills or reinforces the basic skills and gives them motivation for their other classes.

Further, a superintendent explained that although some students view vocational education classes only as a means to getting a job, the learning which occurs in vocational classes helps them realize the need for other courses. Students become more realistic about occupational opportunities and their prerequisites.

What the motivation or inspiration means for the lives of the students affected by vocational education classes is difficult to determine. One student made an effort to convey what such a class means to him when he said, "It has enthused and encouraged me."

Spotlight on the Student

The class structure and atmosphere also create conditions which focus instruction on the student and his or her particular needs. This is done in a variety of ways which include the teacher spending time with individual students; addressing personal problems; providing career counseling; helping each student connect with the content; and challenging students who have varying abilities.

Teacher works the crowd. The vocational education teacher typically spends a great deal of time with students on a one-to-one basis. This was immediately apparent as we walked into vocational education classrooms. For example, one might walk into a food service class where students are preparing a meal to be served to teachers and students. At first glance we have a difficult time identifying the teacher. Three students are putting together and warming grilled cheese sandwiches while several other students are setting tables and preparing the serving counter for the noon rush. Still others are chopping and washing ingredients for a salad while others are decorating cakes which will be sold to the community. This classroom closely resembles a public restaurant. After locating the person who appears to be the teacher, we see that she is explaining to a student how to put together a recipe. As she begins to walk off, a student from across the room yells over the other sounds and asks where he might find the bacon. They go together to search in the freezer. As the teacher and student are searching through the packages of food in the freezer, the student says to the teacher, "Do you know my car burned up this week-end?" The teacher responds and they continue talking about the car as they rummage through packages of food. After finding no bacon, the teacher asks in a voice audible to all the students, "Who ate the last of the bacon?" There's no response and she says something about having to buy some. Another student comes to the teacher and in a low voice explains she is having problems at home and will have to leave class early for an appointment. The teacher nods and goes to where two special education students are loading the dishwasher. The teacher compliments them on their speed in clearing the counters of dirty dishes. As she finishes her comments, a crash is heard from the far end of the kitchen and she hurries off to see what happened.

Although this is a partial description of only one site, it is typical of how one might see a teacher "work the crowd" in a business and office class, a distributive education class, an agriculture class, or an industrial arts class. Generally, those classes have very little lecturing; rather, students work in laboratory settings intended to simulate the workplace. The teacher moves from student to student and offers help, gives compliments, teases, solves problems, and generally facilitates the completion of projects. One marvels at the energy level these teachers must have to maintain this kind of pace day after day.

The teacher develops relationships with students in vocational education classes which go beyond the content of the class. As we observed teachers working the crowd, we overhead a range of personal comments they made to students:

> How's your brother doing on the basketball team this year?
>
> How are you doing, Lisa?
>
> Is you new job going okay?
>
> You know, if I had more time at lunch I'd go over to that deli
> you work at.

Students also initiate conversation about their lives outside of class. We saw students talking quietly to the teacher before and after class about personal concerns. Some teachers had offices and, while the majority of students were working on projects, the teacher often could be found talking with a student privately in his or her office.

Although a teacher in a marketing class appeared uncomfortable over the amount of time he was spending informally with the students, he justified the use of that time to the researcher:

> Some people think you should hold class right until the end of the hour--the school board, for example. But there are some things that you can't do in a whole group. Mary had some problems with the program for the banquet, and Julie needed some help in her convention report. Brenda is in the process of changing her placement and she needed to know about notification forms. Sometimes kids can't really put into words what they need so you just have to allow the time and be relaxed and willing to listen. Try to help them feel comfortable to talk and be ready to suggest approaches to some things which come up.

Some might question the amount of unstructured time we saw in some classes. However, for this teacher the time is justified and it is part of working the crowd.

Although the teachers in the classes we observed were generally responsive to questions of students, we also saw some cases of students being ignored as they waited for help. In one instance, a teacher answered questions as students approached but walked away before all students in the line had a chance to ask their questions. In another observation, a teacher did not move from a spot because he was surrounded by students for a major portion of the hour. Occasionally students alluded to the inability of teachers to "get to everyone."

Personal problems surface. The private one-to-one conversations which take place between vocational teachers and their students usually center on the personal lives of the students and commonly focus on family problems or relationship problems. There are several reasons why this occurs. A vocational education director described what he perceived as reasons for the development of these personal relationships:

> Well, I think our teachers work more personally with their students than a lot of the other areas. Because they have them for longer periods. And they almost become counselors--they are with them at extra activity functions and conferences. You really get to know those kids very well. And they come to you with their problems and you have an opportunity to be a role model and to guide them. And you get to know them on a more

> **personal basis. You get to meet their parents and pick them up at their homes and go to picnics with them and so there's more of a guidance function, I think, in those programs.**

One student in a home economics class stayed after class one day to ask the teacher for advice on how to respond to another student who had been threatening her physically and had knocked her against the wall that morning. The teacher supported what the student had already done to deal with the problem and encouraged her to let her know if the situation didn't improve.

We also saw examples of teachers who were flexible with rules when it came to some students who were experiencing problems in their personal lives. Sometimes teachers gained advice from counselors who were working with the troubled students. However, it's not unusual for a teacher to be the only person who is aware of certain problems.

We also saw a teacher give advice to a whole class about the quality of work they were doing in their other classes. In this case, the teacher's role as counselor extended to the entire group. Here is what he said to his students:

> **I've been hearing that some of you are not working really hard in your other classes. Better shape up. Especially social studies and English. I've heard they have a reputation of not passing seniors who don't work.**

Career counseling occurs. Because many vocational classes have a job-preparation emphasis or even an on-the-job component, career counseling is an integral part of the classes. For example, a teacher in a business and office class spent a great deal of time during the year setting up contacts with companies who hire his students. When the students enroll, he has a range of possibilities available which are consistent with their skills and interests. This teacher is also careful to maintain good relations with these employers so as not to jeopardize the use of possible worksites. One student said students who are irresponsible or cannot be trusted on a job often are screened from the class because they might ruin opportunities for other students. Although we did not see evidence of this kind of screening, we suspect it does exist. This means that opportunities for some students are restricted if they do not meet certain criteria.

A teacher in a graphics class announced to the class that a position was open in the community. He explained that, as he saw it, this job may be a better opportunity than going on to a vocational school and if students were interested they should come and speak with him. In this situation the teacher made judgments about the quality of various career opportunities available to his students. Considering the relationship students generally have with their vocational teachers, one would suspect that students consider this advice rather seriously. One might wonder if parents appreciate this kind of guidance. We had a clue as to the double-bind students find themselves in when they process advice from vocational teachers and from their parents:

> **She tries to encourage the kids to go on her program and get out of school and go to work. Which, that's probably good for you, to get ahead. But my mom doesn't really want me to get out of school and I think that since I'm not interested, I'm more interested in another career, and she's been just pestering us about taking her class.**

During the time of our study this student was enrolled in a class taught by this teacher. According to the student, the teacher began giving her less attention in class once she found out the student would not be in the program next year. This same teacher conveyed other examples of how she disagreed with parents regarding the courses particular students should take. When opportunities are valued differently by parents, teachers, and students, conflict is created for students.

Students connect with content. There is evidence that, for the most part, vocational teachers make an effort to have students connect with the content of the course. This means that students are provided with sufficiently varied and effective opportunities to acquire the course content. Teachers in this study sought to link all students with the content by drawing students into discussions and other learning experiences, "tuning into" students in a special way when there is a problem with their coursework, making an effort to call on all students to encourage them to orally participate in class, and raising issues or asking questions which help students relate the content to their own life experiences.

For example, a business and office education teacher called all the students into his office, individually, and talked with them about their mid-term grade. Another teacher described how he monitored a student's behavior which was interfering with his learning:

> You probably saw me check him a couple times during the first hour and I checked him the last couple days. He's been nodding off. It hasn't had anything to do with work. He hasn't been working at night. He said he hasn't been staying up at night. So right away this leads me to think that maybe he is getting into a drug problem because he's got some funny people he hangs around with. This afternoon and tomorrow I will check with his counselor and see if there is anything anyone else has indicated about him.

An example of a teacher making efforts to include everyone occurred when a teacher had a student move her chair to the front of the room because she could not see well enough to participate in the problem solving which was being outlined on the blackboard. At the end of a section of problems this same teacher said to the class, "Have I missed anybody? Did everyone get a chance to respond?" Another teacher made sure a student's birthday cake was shared with a student who had to leave class early.

The most prevalent way teachers get students to connect with the content is to relate, in some way, the content to their personal lives. Teachers often converse with students about their personal lives, and this information is sometimes used in class discussions if the information relates to the course. For example, a teacher talking about the size of an acre compared an acre to a city block for the benefit of students from urban areas. Teachers commonly raised questions such as:

> What was the yield in corn last year on your farm?
>
> Do you have insurance coverage on your job site?
>
> Have you tried this dish with your family?

A foreign student in a family life class often was asked how the concepts of marriage and family life are thought about in her own country.

Overall, students seem to find something in vocational classes which relates to their life experiences. A student in an agriculture class on computers was interested in the content because it could help him explain the various programs to his grandfather who had just purchased a computer. Another illustration of this point is the student who became interested in the content of a family life class because the content helped her understand her relationship with her boyfriend.

Teacher raises the floor and the ceiling. As teachers make an effort to meet the individual needs of students, they make an effort to "pull up" those students who are falling behind or assist those students who are in some way not having access to the knowledge provided in the class. This usually involves doing something special for the student. Teachers also make efforts to raise the ceiling by challenging those students who have skills and abilities above those of the majority of the class.

Special needs students often are enrolled in vocational education classes, and in some cases additional aides or support systems are provided to help these students achieve. Teachers and their aides adapt instructional methods and materials to the abilities of these special needs students. In some cases students were tested orally while the rest of the class completed a written test. One student in an auto mechanics class was allowed to solve problems by asking questions or by trial-and-error because he had difficulty reading, whereas other students were required to use the manual to solve problems. In a foods class, special education students were given tasks which were consistent with their level of ability, and an aide was available to provide support for these students. The special education students often were given tasks which involved working along side others (parallel tasks) or working at their own pace. In this class, the special needs students were treated with respect and were seen as an integral part of the food service process.

We observed a teacher in a graphics class who typically barked out a lot of instruction to his class. He changed gears as he took time with a lower ability student who was working on a project. With this student the teacher started asking questions very patiently, giving the student time to answer and time to work through the assignment.

Occasionally the entire class stopped doing a group assignment so that some students could catch up. As a business and office education class was working through a problem together, the teacher asked if everyone had the right answer. One student responded, "No." The teacher said,

> That's fine. We'll slow down. The main object of this exercise is to understand the rules. We aren't in that much of a hurry.

There are times when teachers address social and emotional needs of students as they make efforts at raising the floor. An agriculture teacher informed his class that a student who had been out of school for a long time with cancer would be returning to school and would be enrolled in the class. The teacher suggested that the students go to meet him when he came and help him get involved. Another teacher explained that a new student from another state would be enrolling in the class and encouraged students to make him feel welcome. The teacher concluded, "It must be tough to be new in a school." Although we do not know how each teacher thinks about the efforts he or she makes to pull students up, a business and office teacher summarized his thoughts by saying, "We cannot enable them in failing."

Most of the teachers we observed and interviewed said that they enjoy the challenge of working with students who are considered behavior problems in other classes or have some difficulty in learning. One teacher expressed pride in being able to effectively motivate those students. Principals and superintendents recognized how some students blossom in vocational education classes when they have not done so in other classes. However, this also creates a problem for teachers. They know they can provide opportunities for these students, but as a home economics teacher explained:

> It's a struggle, because you want those students and yet you're dealing with another spectrum of students. And so if you gear it towards them, then sometimes that scares away the other student. So you are caught in a quandary as to what to do.

If an effort is made to pull students up from the bottom and those efforts are successful, what are the implications for students with high ability? If educators are raising the floor, are they also raising the ceiling? Is the course educationally equitable for high ability students? Do high ability students have access to knowledge which is appropriate for them?

Vocational teachers face the challenge of having a few students come into the class with skills and abilities well above the majority of the students. An agriculture teacher recognized this problem and structured the class so that it would be likely to challenge students with advanced skills in certain areas:

> In the mechanics area, for instance, I always have students who are practically semi-professionals at engine mechanics. They've worked on cars for years. I can teach them a few new things, but I can give them one other opportunity and that is helping them to teach other people what they already know. I think that is a benefit that makes up for it.

An industrial arts teacher used similar methods to raise the ceiling:

> For example, those two guys that were working on brakes today, they were very competent when they came in here. They had a lot of prior experience on cars. They didn't have to get over the fear of working on cars. They weren't intimidated at all. And so then--I stay out of their way. But I just answer their questions and give them a hand and provide them with the tools. Otherwise I'd be holding those guys back. Whereas somebody else needs more individual help. Now, those guys, I will also ask them more difficult questions when they're testing out on something.

The following excerpt from a home economics teacher's interview summarizes how vocational education classes can meet varying learning needs of students:

> I mean we really have such a wild combination that I think we really are serving almost any and every need. Students that are more college bound are given much more challenging tasks to do. They are responsible for putting an entire menu together, the cost, going to the grocery store. So a class, like a vocational program, can really be done in different levels. Okay, then you have the special needs student who really is only good at repetitive work, so you set up with them on Mondays, "This will be your job assignment on Monday--you're taking care of the laundry so you do all the folding of the laundry on Monday. Tuesday you're in charge of this." I think a vocational program lends itself to work with a wide variety of skills and needs of students because you have a lot of flexibility. You can always give the more talented or the higher level student, you can always give them a lot more opportunity, and it's well-rounded for the student that isn't able to comprehend as fast. So, there are ways to allow flexibility for student levels, which is nice.

Some vocational teachers see their courses as a place where they, more than other teachers, can effectively meet the needs of students who represent both the floor and the ceiling. This same home economics teacher described the comparative advantage which vocational education has:

> We're unique because we can move around the classroom. The students are not in one desk. You can walk up to a student privately and hold a conversation about how have you been or what you see yourself doing in the future and what do you want to get out of this class. We do ask for that inventory at the first part of the semester, but just actually talking with a student and I think the vocational program allows that flexibility.

However, other vocational teachers were less able to structure their classes to meet the variety and complexity of needs presented by students. One student near the ceiling in his vocational course described his perception of what happens when the class make-up includes a variety of abilities:

> In this class that we got this year--it's supposed to change for next year--but this year I don't think I've benefited that much from taking this class. There's stuff that I gained or picked up a little bit on, in a way, but other than that I could have just as well not taken the class. I'm way advanced in the class with what we got now. We got two groups like I said before, and of the two groups, the slow group is the majority and that's who has to be catered to rather than the minority because they have to learn something first. And while us advanced students, we could be doing other things like taking on other programs that are more complex.

Meeting the needs of individual students appears to be dependent on the ability of the teacher to use the opportunities--some fairly unique--which are available in vocational education classes. This ability to both pull students up from the bottom and challenge those at top is probably related to characteristics of all "good" teachers and most likely is not exclusive to vocational education. However, there is ample evidence that at least some vocational education teachers effectively meet educational needs of a broad range of students.

Students Shine

Developing self-esteem or feeling comfortable with who we are is a need common to all of us. We all want to "shine" in our own eyes as well as in the eyes of others. When we have low self-esteem we feel weak, helpless, and inadequate. These feelings affect our ability to learn, to become motivated, and to develop competency in any area. There are two components of the need for self-esteem. The first component is the need to feel competent and confident in our abilities. These feelings come from the ability to do things well. The second component is the need for status or prestige in the eyes of others. Feeling good about one's own accomplishments is necessary but not sufficient for developing self-esteem; others must also reinforce this image of being competent and capable. Our experience in vocational education classes made us aware of the numerous opportunities teachers have to develop self-esteem and, thus, help students shine by gaining both competence and status.

Students gain competence. The numerous projects and activities which are an integral part of vocational education curricula provide opportunities for students to develop competencies which contribute to positive feelings about themselves. These projects and activities are usually tangible and offer students immediate feedback about their accomplishments. According to one teacher, these relatively immediate and visible results are unique to vocational education:

> I think for some kids . . . they really see some practical aspects of education. They don't realize sometimes it's the best kind of education because they don't realize that they are learning things. They are and they're putting them into practical application. They say, "Oh my gosh, is that what I learned?" Maybe that's the neatest thing. I see some confidences being built because they see some success immediately. It's not that they don't see success other places, but here there are some real tangible things that they can put out there. I'm thinking about the DECA programs, the competitions that they go into.

A high school counselor also talked about this sense of accomplishment and how it was important to students:

> Well, there are kids that are definitely not college material. They're not academically-oriented. They are just the way they are through whatever reasons. So it gives them a place to go or classes to take that they are interested in. It makes a better, I suppose, a better school setting if they have to be there til maybe 16 and they have these other choices, you know. It makes it more interesting for them and a better school situation. Yes, it makes them feel better about themselves, accomplishing something.

And a business and office education teacher perceived a similar relationship between the sense of accomplishment and self-confidence.

> It gives them a sense of confidence in what they are doing. It makes them ready to learn other things. Like I said, that's one of the advantages of vocational education. If a kid gets in algebra and doesn't have some success, they're not going to get more success as they go. Whereas with us, going in with different types of activities and that type of thing, even though they have periods where they don't have success, they will have periods where they will have success and they know that. So it's not a chore and it's not a task. Most of them enjoy coming here. Even if they don't get good grades, they still enjoy coming and being there.

Students, too, talked about this sense of accomplishment which develops in vocational education classes. However, they usually are not aware that a sense of accomplishment affects their self-esteem. One student in a business and office education class said, "It's a challenge. I like coming here and seeing if I can do the jobs or not." A student in an industrial arts class talked about her experience in learning to run the presses:

> At first it's presses, and I thought, "No way am I ever going to run that." And I kind of made it a goal for myself to learn how to run this thing and to run something off myself. And when I did it, I was really happy with myself. The first time I ran something off I just thought, "Wow!" I brought it home and showed it to my dad and my dad knows my teacher. And he was asking me, "Did your teacher help you with this? Your teacher must have helped you with this." And I said, "No, I did it all by myself."

The feelings this student expressed result from a realization that she did, indeed, accomplish a goal. She made a decision to learn to do something and had evidence of that skill in her completed project. It's obvious she felt good about herself and about being able to show her father what she had achieved. We can only speculate as to the effect of this and similar experiences on her life.

One of the researchers observed what might be called an "extra ordinary event" in an agriculture class. The students in the class had been working on getting on old Ford tractor to run during the preceding weeks of the class. Great effort had been put into getting each part of the tractor in a condition which would make the tractor run. The time had come when everything should work. They tried to start the engine. Here is the one-minute segment taken from observation notes to describe what happened:

> The engine on the Ford doesn't start. The teacher cautions about overheating the starter motor. The teacher appears to think for a while and then walks away to the area where the tractor is sitting. The teacher picks up something off the floor. Some students are putting water in the Ford's radiator as asked by the teacher. They try the engine again. It's going to start. The teacher is the first to cheer followed by several students. The engine is now going. The teacher tries the hydraulic system. It works. The teacher tries the gear shift. It seems to work. The students are all standing around smiling. The teacher says, "Field ready?"

As the students were cleaning up for the day, one walked by the researcher and said, "We really did something today. It ought to be put on the calendar."

As a result of this project, students had the opportunity to develop confidence in their ability to master certain components within their world. Is this a part of what vocational education is all about--giving students the feeling that they can master aspects of their world? A student in a business and office class gave us a feel for how this sense of accomplishment affects self-esteem. "I feel like I have more power over in model office than I do in my [other classes]." She added that she felt more confident because she knows she can do the work in the model office class.

We have the general impression that for many students a feeling of competence and confidence in one's own abilities and skills develops in vocational education classes. Students have an opportunity to shine. This may be especially true for students who have limited opportunities to shine in other aspects of their lives. In fact, there are times when students might have developed self-confidence to an extent that it is unrealistic considering their skills and abilities. One student, for example, explained that she will have an edge in getting a secretarial job over someone coming out of a college secretarial program because she has had job experience and training which someone else coming out of college might not have. This student could experience a letdown once she graduates and enters the job market. However, this self-confidence which has developed could also provide her with the edge she did not have before she began the program.

Students gain status. Teachers generally make efforts to enhance the status of students in their classes. They let them know that in the eyes of the teacher the student is "okay." They do this by way of recognition, attention, and general support.

Because students in vocational education classes are often working on some tangible project, it is easy for teachers to find opportunities to praise and support them individually and collectively. Teachers compliment students on both the process they use to create a product and the end product itself. The product could, for example, take the form of an entree for the noon lunch or participation in local, state, or national competition through youth organizations. When teachers worked the crowd, we heard them praise students as they completed projects. Here are some of the comments we heard:

> That's a neat way of doing it.
>
> That's gorgeous.
>
> Very good, Sharon.
>
> Look's like you have a winner here.

In addition to comments like these which we heard often as we went from program to program, we noticed several other ways in which teachers fostered students' sense of status. One teacher explained that he likes to call students "Mr." and "Ms." to make them feel important and provide an atmosphere of respect for students. Some teachers patted students on the back as they orally praised their work. Other teachers tended to become involved with students' projects. For example, a teacher complimented a student on his good work and then danced a jig as he shared with the student the joy of solving a problem.

Another teacher in an agriculture class had his hand on the back of a torch handle to help the student guide the torch. The teacher leaned over the object being welded and said, "Beautiful, that's right," as the teacher and student worked together on a welding project. This same teacher became even more exuberant as he coached another student through a welding assignment. Here is a segment from the observer's notes:

> The teacher moves over to observe a student arc welding. He guides the student's hand as he makes the weld. The teacher takes his hand off. Teacher: "Down, down. Nice, not too fast. Down, no. That's better. Holy cats, you done well! That's beautiful!"

Teachers seemed to be deliberate in their attempt to concentrate on the positive aspects of students' activities in the class. One teacher explained it this way:

> You know if a person's behind or something like that, I don't ever berate the personality or attack them personally like a lot of people would. I mainly talk about the necessity for different behavior or the need to perform or something like that.

Another teacher in a business and office education class discussed his hopes to change behavior in a positive way while helping students shine:

> For a lot of kids in the lower end of the class rank you include the idea of self-image and self-worth--show that they have importance and show that they have something to contribute. Because there are lots of kids academically on the scale that don't have anything, knowledge-wise like that, to contribute. And to show the value of what they have. Because everybody has to find their niche. A lot of kids don't perform well in school because they don't see any value in themselves. I was talking to Allen, the big guy's mother yesterday, and she said the problem that he's always had with all of his teachers, and it's sad, the boy is told he is dumb. Or he's not going to be able to do well. Whereas, like myself, I never tell a student they're dumb. I never attack them personally, just structure

> the behavior, change the behavior. Like a kid at work, the boss says on the evaluation, "Person is not friendly enough or they don't approach others," or something like that. . . . I try to modify the behavior. I tell the student to greet the employer and the workers when they come in with "Hello" or a simple joke or something like that, you know. "Smile. Force a smile." Just simple behavior modification that you can do in the class or at work if you have a job, that type of thing.

There's usually an underlying assumption conveyed to the students that they can, in fact, do whatever they're being asked to do. One teacher described a student's work and the conversation he had with that student as he challenged her to try harder:

> But the thing of it is Sara got a D- first quarter. She got a D- second quarter. She's got a C+ going this third quarter. I went through it one time with her. And then I switched it around and I said, "Look at this." And she looked at it and she has a C+ going and only one assignment behind. "You've done very great. You attended the district convention. You have all this stuff going this quarter. This is the highest grade you've ever gotten. You got D- first quarter and second quarter. You are just doing terrific." And she is. Even though it's a C+. So the kids know that we're going to build up as well as reprimand at times, too. Most teachers don't take the time to build kids up.

This same teacher encouraged a reluctant student to use a word processing program on the computer. The student resisted and the teacher said, "Try it. It will give you a chance to see what word processing is like." The student sat down at the computer and began to read the tutorial. Another teacher summarized his role in the lives of students by saying that he could be someone who can "guide their learning and encourage them to go beyond what they already know--more than just stand up there and teach them." A principal summed up the need for this kind of involvement by teachers:

> By requiring more of the students and putting a little more zip into the thing. You know it's deadly. You know if you go in there every day and he takes attendance and sits down and says, "All right, everybody get your projects out," and that's it, not much encouragement and not much saying, "Hey, this is beautiful." Not much showing a student how to do anything. They just kind of fumble through with each other at the entry levels. My theory is that kills them. They've got to get things out of those kids and move around and work with them and show them.

Perhaps teachers model this praising and encouraging behavior in an effort to get students to emulate this action. For example, a teacher names the students who were participating in a contest and added, "Let's wish them our best." Another teacher in a home economics class announced to the group after they served a meal, "Okay, guys, those dishwashers have done a tremendous job! Let's give them a hand!" The students then applauded and cheered.

Students, although less often than teachers, also initiated praise and encouragement of one another. A student was overheard talking to another student about participation in a contest:

> **Brenda: You can do it.**
> **Lisa: Do what?**
> **Brenda: You can go right to the top. I have confidence in you.**
> **Lisa: Oh, yeah?**

In contrast to the preceding themes, we also observed occasional instances of teachers' yelling at students or putting them down. Since no teachers are immune to expressing frustration and impatience, it was surprising that we heard relatively few remarks like the following:

> **What are you showing it to me for? You've got two eyeballs. You're telling me you don't know what to do because you don't remember it.**

Realizing the nature of human nature, we know these responses are bound to be voiced at times; however, most of us, probably including the teachers who made these remarks, hope that such retorts are rare and don't occur when a student is especially vulnerable.

Students Practice

Having opportunities to practice skills is an important part of the vocational education classroom experience. Work in the laboratory is part of what draws students to these classes. But what about the quality of the equipment in the laboratory setting? Is there an opportunity for students to practice skills on equipment which is up-to-date and consistent with what they will encounter in the workplace and home environment?

In the classrooms we observed, the extent of students' exposure to relevant and up-to-date equipment varied greatly. The consumer home economics classroom had ample equipment for students to use, and this equipment was consistent with what students might encounter in their own home. The classroom had one computer which students used on a rotating basis. A business and office education classroom looked just like a regular office downtown. It had numerous desks, with calculators and typewriters sitting on top of them with their accompanying plastic covers. Although it appeared to be a model office to someone unfamiliar with the field, a student who had a part-time secretarial job told us that the typewriters were several years out-of-date.

Numerous factors affect whether or not resources are provided for adequate equipment in classrooms. One teacher said he had a good relationship with the principal, and, therefore, he got the equipment he needed. Another teacher said he came into the job with limited equipment and an even more limited on-going budget. Still another teacher entered a teaching position with a charge to improve the program and a liberal budget to do so. Other teachers talked about relationships with and support from school boards, advisory committees, and the community which ultimately affected funding decisions. The extent to which students are provided with sufficient state-of-the-art equipment so that they all can complete projects is dependent on these numerous factors--few of which take into account the learning needs of students.

Varying quality of equipment results in differences in educational treatment for students. Differences are justified only if there are relevant differences in the kind of learning students should experience to enable them to have equitable access to social and material goods in society. If a student in one business and office education class has the opportunity to learn skills on a typewriter which is five years out-of-date and inconsistent with a machine which he or she will encounter on a job, and another student has an opportunity to develop skills on an up-to-date machine, there is an inequity. The student who learned skills on the up-to-date equipment will have an edge on the student who learned skills on out-of-date equipment. Shouldn't all students have opportunities to use relevant and up-to-date equipment?

Although the solution to this problem is complex and not easily solved, we might begin by asking how it is that resources get distributed between vocational education and other classes as well as among vocational education classes. Are these resources being distributed in a way which is fair and just in terms of opportunities for student learning?

Summary

Students' access to knowledge becomes the major equity concern once they enter the vocational education classroom. This chapter has identified and discussed several practices which promote equity in vocational education classes: the development of positive feelings about the class, the meeting of individual student needs, the promotion of self-esteem, and the exposure of students to relevant and up-to-date equipment. These practices were illuminated by our study. However, there are other practices which lead to equity which might be considered in future research. For example, one practice which could be explored is the quality of instruction provided in the class. Is the information accurate and up-to-date? Is the information provided in a way which is conducive to learning? This study has focused primarily on students' learning needs. However, equity also involves the appropriateness of information and the way it is presented to the students.

This study indicates there are numerous examples of equitable practices in vocational education classes. However, further research might also address the question of whether or not these practices are deliberately built into the curriculum. Or are equitable practices an unanticipated outcome resulting from other goals and objectives identified by educators?

Chapter IV

Outcomes of Vocational Education: Blessing or Burden?

What are the outcomes for students who enroll in vocational education classes? Do vocational education classes contribute to student learning in a way which results in increased opportunities for students as they leave high school? Do vocational education classes ultimately help students gain access to basic human rights? Is vocational education a blessing or a burden?

Because our study did not intend to address these questions directly, we don't have data which tell us what actually happened when these students left high school. However, we did get a sense of what educators saw as potential outcomes for students, and we also asked students about their perceptions of possible benefits of vocational education classes. The discussion which follows focuses on these perceived outcomes of vocational education classes.

All Things to All People

Most of the teachers, administrators, and counselors said that vocational education serves three purposes: training for employment, preparation for further schooling, and exploration of possible career options. Generally, all three purposes were thought to be of benefit to the variety of students in vocational educational classes.

The following response from a vocational education director is a typical example of how adults in the school think students benefit from vocational education--but in differential ways:

> I guess I see all three as equal. . . . So if it's on the basis of the student that isn't going on to school, naturally the skills. But if they are going on to school, then I think that the prep for going on is just as important. It's real important to have the skill, almost all of these kids got something

> to sell when they are going on--even if they are going on to college. If they've learned a skill there is an opportunity to earn enough money to help them get through school and a lot of kids actually do.

When teachers, counselors, and administrators were pressed to prioritize the three purposes mentioned above, they invariably placed training for job placement at the bottom of the list. Several reasons were given. Some thought that vocational education should be considered an integral part of the general education provided in the high school.

> I don't think it should shift into being more job oriented. I think the general education and the overall education of the student is more important than trying to prepare this kid for that job while he's still in high school.

Another reason for ranking job training as a low priority was that schools often do not have funds to acquire and maintain up-to-date equipment which adequately prepares students for jobs in technologically complex and changing work environments. For example, in the 1980's an auto mechanic must be able to diagnose and repair computer systems in cars. Most schools would not budget funds to purchase the specialized equipment used to do such diagnosis and repair, especially if the equipment is likely to be antiquated in a few years. How well, then, can a student be prepared as an auto mechanic?

Others see job training as a low priority for vocational education because, "High school students, especially ninth and tenth graders, are too young to be making career decisions." According to the people with this point of view, school is a time to get exposure to a variety of career options rather than focusing on a specific career.

Both career exploration and preparation for further schooling were given high priority among the purposes of vocational education. Some educators said that they are equally important, while others ranked one or the other as most important.

A counselor who ranks career exploration as the number one priority said:

> I see [career exploration] as a number one priority for this age group. I think giving them experience just to explore--the old idea of looking at three occupations and writing a report is a bunch of junk as far as I'm concerned. Because that just fulfilled some teacher's request. I think exploration, using resources. . . . I say this because we do this. We bring people into our career center. We'll have a commercial artist

> come in and spend the whole day working on a commercial art problem and let kids go in there and certainly ask questions. I think they have to have an awareness of what's available to them. I think we need to develop some work ethic. That's one that we haven't ever been able to tackle. It's a false world that they live in. It's comfortable. It's got carpeting on the floor, it's warm in the winter, and there's a good hot lunch. What more could you ask for? We tell them that a bolt of lightening doesn't hit them when they get their diploma . . . all this has got to happen and then incidentally you get a diploma. I happen to believe very strongly in our coop programs. I think that for kids that's a heck of an experience.

For some students, exploration means they have a way to get started, a place to find a direction. A business and office education teacher described what happened to one of his students:

> And this student started on my program as a junior, and she didn't know what she wanted. So she decided to go into my program. And so she went on and she worked and she decided she wanted to go to school. She worked for a company that had a lot of engineers. She's an electrical engineer today.

The other highly ranked purpose of vocational education--preparing students for further schooling--was emphasized by some educators with whom we talked. The superintendent who made the following remarks seemed to combine the purposes of career exploration and preparation for additional schooling:

> Well, I think it gets them into a field and then they can zero in on what they really want to do. Okay, in this way, some kids like to monkey around with machines and make things in shops. But they really don't know what machine trades consists of until they get into it and then some of our students have found out, hey, they like that. And then they find out that hey, in order to do this I need to learn the things that I can here at the vocational center, but I have to go out and get some additional training. It actually exposes them to a whole job. Most kids, they'll wind up in that kind of a field, like machine trades or something.

In summary, we can say that teachers, counselors, and administrators generally agree that vocational education should have multiple purposes to serve the diverse needs of students. Although they think job training is comparatively less important than career exploration and preparation for further education, they consider all three purposes beneficial to students enrolled in vocational education classes. Equity from the perspective of teachers, administrators, and counselors means meeting the multiple needs of the variety of students who enroll in vocational education classes. Equity also means meeting those needs in a way which provides increased opportunities for students as they leave high school.

Outcomes Through Educators' Eyes

When we interviewed teachers, counselors, and administrators, we asked them questions like: What effect does vocational education have on students? How does vocational education increase opportunities for students? How does it limit opportunities?

The Winning Profile

Overall, the educators' responses to these questions place vocational education in a positive light. A central theme in their responses is that vocational education classes help students develop a "winning profile." That is, vocational education somehow transforms many students from something ordinary into winners. Further, and most important, educators think that because students "shine" in vocational education classes, they can shine in the out-of-school world as well.

This transformation generally was talked about in two ways. First, many teachers, counselors, and administrators talked about vocational education as providing a foundation upon which numerous layers of block are eventually placed to further enhance what was begun. Second, they said that vocational education gives students that extra push at the starting line which helps them be successful in life.

Laying the foundation. We got the impression as we talked with teachers, counselors, and administrators that they see vocational education as the beginning, a place to start, but that a vocational education course or series of courses is not meant to turn out a finished product. A home economics teacher talked about her courses being a "base" for other things:

> If I can get a student in child development who can use that for a basis for being an aide in a preschool or whatever, that's an opportunity. I would hope that I can give students that opportunity through those classes. Opportunities in the food class to go into a food service area. "Oh, I've had a course in Food I. At least I understand this." Hopefully

> that's going to be an opportunity for that student to help an employer. Yes, I see us as being able to help students . . . some vocational career opportunities, I hope, would have an edge over that student who hasn't taken that kind of course.

An agriculture teacher saw his courses even more broadly. He described how agriculture is a foundation for other experiences:

> I operate under the premise that 60% of all occupations are involved with agriculture in some way or another. That if you have a foundation of basics in agriculture you have a better opportunity to compete in those fields and to get the jobs and then to survive. . . . If you know the chemical analysis, for example, the fertilizer is made up of three different elements, and if you decide to go into a technical science area and do some research somewhere, you will have an opportunity to use those things later on--maybe in an indirect kind of a way. But you've got them available at your disposal. I think there are many, many examples of that. If you understand farm management principles and you end up being an accountant, a banker, a teller--just when a farmer walks in, you have kind of a feel that the person knows the value of a dollar, struggles hard for it, doesn't take it lightly, is very careful about how it is spent, how it is earned, and keeps very close track of it. Because you have already had some ag background in farm management, finance, or maybe you were out there working for a guy who paid you 2 bucks an hour to pick 18 million rocks one day. You have a feel of these things.

A vocational director thought that vocational education sometimes helps students become qualified for part-time jobs which can help them work their way through educational programs beyond high school:

> Well, I think it makes them a lot more employable for one thing. No matter what they're going to do, if a person is going to be going to college or if they're going to work, whatever they do, if they've got some of these skills that they're familiar with, that's what people will buy. If an employer is looking for a young person to do some work, if they have some skills, they're going to get a part-time job or whatever it might take to work themselves through school, to build on. Any experience that you've gained in life is something that you can build on, and I think that's the key to the vocational program.

Some educators said that vocational education helps students find a direction. One teacher described it this way:

> Plus it gives the students opportunities to find out who they are and where they are and where they want to go. What they can and can't do. You might have a student who's all excited

> about being a diesel mechanic and after he gets through working in a place, as kind of a repair man as an example, one of the students I have might now kind of decide, "Hey, maybe I don't want to be a diesel mechanic. Because I don't want to be dirty all the day and I don't like working out there. You know when it's cold and snowy in the truck, those kinds of things." So I guess it gives students experiences that they could get no other way, that can give them some ideas as to what direction they want to go.

Although a few teachers, counselors, and administrators talked about job placement as an outcome for students, generally they thought that what students learn in vocational education classes is the beginning of greater things to come.

The extra push at the starting line. Teachers, counselors, and administrators also listed gains in students' self-confidence as an outcome of vocational education classes. Already we have indicated that many students in vocational education programs have not been successful in other areas of the school curriculum. In vocational education classes, students encounter some learning experiences which are different from experiences in other classes and, thus, find different opportunities for success. This success may give them self-confidence as they leave high school and encounter new experiences.

A home economics teacher described what has happened to one of her students:

> Well, one instance is a student that just recently started at Taco Bell, I think she said. And she said, "You know before I took this class I would've never guessed that that is something that I might have enjoyed doing as a part-time kind of occupation." And so she said, "But I went up there and it gave me confidence to do what they said. I mean I was not scared when the first customer came up to me and said, 'I want this, this, and this.' I simply explained to them, 'This is my first time, I will get it as fast as I can and I know what I'm doing.'" So, I guess it gives them confidence, it gives them skills, exposure to build on what they already have and I like the confidence end of it.

An industrial arts teacher added to this description of what can happen to vocational education students. He explained how self-confidence developed in vocational classes spills into other aspects of students' lives or various occupations they might choose to enter:

> It gets back to self-confidence. Vocational education is filled

> with a lot of nutsy boltsy things. The more things that you can do, the better you feel about yourself, I think. The ability to fix something, to understand something because you've done it, because you've taken it apart. I think that positive self-image, that self-confidence, spills into every other thing they do. They may become a medical doctor, but that self-confidence helps them in their school, in their interpersonal relationships. So you feel a lot of progress.

An agriculture teacher also said that when vocational education challenges students to go beyond their own expectations, self-confidence develops:

> Using our ag program as an example, in that program many of those kids go far beyond their expectations of what they're able to do. So a good program will challenge kids, will lead them to new achievements that they haven't done and will increase their self-concept.

As people talked about how increasing self-confidence can result in a transformation, it became evident that they thought this outcome can create opportunities for students, it can give them that extra push at the starting line. However, the question we raised in Chapter III bears repeating: Is it possible that some vocational education students develop self-confidence which is unrealistic considering their skills? Can we go too far in developing self-confidence in students? Are we setting them up for a let down? Are we telling them they are going to be winners when they might not be?

As indicated earlier, we are talking here about perceived outcomes for students. We do not have data telling us what actually happened to these students after they had been out of high school for a few years and what they thought about what had happened. However, we can presume three possible outcomes. Students can tackle their post high school experiences with gusto as these teachers, counselors, and administrators anticipate they will, and the foundation and self-confidence they developed in vocational education classes will give them an advantage which they did not have previously. Or students might suffer disappointment and frustration as they compete in situations where the skills they have developed are not recognized or are not adequate. A third outcome could be a combination of the two--students may not end up where they thought they would, but they're farther ahead than they would have been without the vocational education experiences.

Which of these three scenarios is actually experienced by students serves as the ultimate determinant of the extent to which vocational education contributes or is even essential to an equitable education for students. For example, if vocational students are improperly prepared for positions in the work world, they will not experience increased career opportunities. Or, if because of taking vocational classes students acquire an inadequate preparation in the "academic" areas, they will be handicapped occupationally and personally. To explore possibilities such as these, we asked teachers, counselors, and administrators if there are ways in which vocational education classes limit opportunities for students--hold them back, restrict their development in any way.

Holding Students Back

Overall, the educators said that the experiences in vocational courses did not in themselves limit opportunities. However, the choices students sometimes made between vocational courses and other courses in the comprehensive high school did not always result in a balanced curriculum for them.

A home economics teacher described the dilemma students find themselves in as they choose classes:

> It's difficult in this more advanced class because it really needs to be two hours, because obviously it's a better class if, indeed, it can be, because they can start something and they can finish it. . . . So sometimes there's conflict. There may be a student that really wants to work on an automobile, learn those skills, and also wants to do food service. So he has to make some choices. It may be the academic course that they specifically want and it comes at the exact time period that this class is offered, too, so it limits them in that they really have to make decisions.

Counselors we talked with were especially concerned about students who "load up" on vocational education courses at the expense of other courses. Here is what two counselors had to say:

> Well, I think some students tend to take more vocational classes than they should and, therefore, may be bypassing some other skill areas, say furthering their math skills, continuing math beyond the basics, or science. We have students who will take a food service class for a couple of years. And I don't know--because I'm not in the classroom--how many new skills they're developing after they've had it for a year. I think they tend to take, for example, maybe a lot of shop classes. We have kids who maybe will take a wood shop several semesters or a metal shop several semesters, whereas they can maybe further those skills, but I'm not so sure. The kinds of machinery we have and materials that we have, [I wonder] if they're really gaining that much ground by continuing those classes when they could be taking more of a variety of things.

> I just can't see that it would limit their opportunities at all. As long as they continue taking the classes from other parts of the curriculum, there's no limiting factor. But if they continue to use, say, let's say a kid was in the two-hour block of production graphics and was there for the two-hour shop and had a study hall. We're talking about how many percent of the school day right there?

Another counselor described a problem she encounters with students who enroll in vocational classes throughout high school because they want to take the easiest route possible:

> Well, ya, but it's not vocational education's fault. It's the student's fault. . . . A student who somehow has the perception that vocational education programs are the only ones he can pass or she can pass, or who is just saying, "Hey, I'm going through high school with the easiest route possible." And then end up going out of school and later having some career options that they may want to consider down the road--that they didn't have the advanced math and they took what they thought was the easiest route. But that's not vocational education's fault. That's the student's fault.

A teacher indicated that students who have taken several vocational education courses could encounter stereotyping as they leave high school. She suspected that even though a student has taken a variety of courses, people looking at a transcript will only focus on the vocational education background and, thus, pigeonhole the student in a thoughtless and prejudiced way:

> Because I'm sure that any placement counselor, let's say at a post high school level, would look at the record, "Oh, well you took auto mechanics, and you took metal shop. Well, you got an A or a B." He forgets about all the biology. There are so many other areas that the kid may be good in or maybe should pursue. But he did well in auto mechanics so maybe that's all they see. Yeh, I think it adds to tracking.

Educators agreed that vocational education classes can only increase opportunities for students as long as students end up with a balance of vocational and nonvocational courses. However, it seems that in some high schools this is not easy to accomplish. Students choosing to attend college usually do not have room in their schedule for vocational education courses, and students choosing vocational courses do not have room in their schedule for college preparation courses. We did find some teachers, counselors, and administrators, however, who said that students can end up with a balanced curriculum. One counselor described a student who had been able to enroll in a mix of classes which has provided him with increased opportunities as he pursues a profession:

> I think today our kids can mix, because our number one student and our national merit finalist is taking an electronics course at the vocational, but he's also taking physics and chemistry and now he's got some practical hands-on things. He can use all the theory in those books that he had in chemistry and physics, but he can actually put them to use in the electronics course.

Outcomes Through Students' Eyes

So far we have been talking about educators' perceptions of outcomes of vocational education. But, what do students think are the outcomes of vocational education? To find out, we asked them to complete a written survey which requested information about why they were taking the class, how they thought the class might help them in the future, and what they planned to be doing a year after they were graduated from high school. The students' responses gave us an indication of what they saw as outcomes of the vocational courses in which they were currently enrolled.

In our analysis of their responses, we were especially alert to the equity issue--the extent to which students chose vocational education courses as a way to develop their interests and talents, the extent to which students felt they were benefiting from vocational education, and the extent to which students' experiences in vocational classes related to their projected future plans.

Why Did You Take This Class?

As one way of understanding what students perceive as possible outcomes of vocational education, we asked them to tell us why they were taking the particular course in which they were enrolled. The surveys were completed in the spring of the year. By this time, some students had been enrolled in the course for the greater part of the semester, while other students had been enrolled for most of the year.

Approximately 80% of the students said they were taking the class to learn about the subject matter being taught. Responses include: I wanted to learn about computers dealing with agriculture; to learn about selling and buying; to learn about cars and engines. Although we do not know what's going on in the students' heads, they typically do not articulate a connection between knowledge gained in this class with future needs.

Most of the remaining 20% related their reason for taking the vocational course with their future needs--personal, occupational, or educational. Here are some examples of how these students responded:

> So I can get some knowledge about a computer so that when I get one of my own some day I will have an idea as to what I'm doing.
>
> To get a little experience for technical school after I graduate.
>
> To help me after high school, to understand life in general.

The purposes of vocational education which are generally cited by educators--preparation for work, preparation for further schooling, and exploration of possible career options--are future-oriented. They focus on helping students prepare for the world outside of the school. Yet, few students expressed an awareness of the connection between what was happening in the class and their future. Should this connection be an explicit part of the curriculum? If so, are most students at a developmental level which makes it possible for them to understand the connection?

How Will This Class Help You?

We also asked students if this vocational class in which they currently were enrolled would help them in what they plan to be doing a year after they leave high school. About 80% of the students said that they thought it would. Of the students who said they would benefit from the class after high school, the majority identified specific job skills as the most useful. Here are some examples of the students' responses:

> Because if I'd ever have to deliver a calf, I've already been showed how to, so I know some of the steps and it wouldn't be all new to me.
>
> I have learned to use machines well that are actually used on the job.
>
> Because I will probably be working as a part-time mechanic somewhere.

Other students said that they gained general work skills which they anticipated using after they were graduated from high school. Here are some examples of the responses from these students:

> It teaches me good management practices and about records.

> What to do at an interview.
>
> Because I need to learn about people because in my line of work you have to know how to communicate.

Still other students told us that they learned personal skills which they would use when they left high school:

> You have a better understanding of cars, and that's always useful.
>
> Without Mom you have to cook for yourself.

What Will You be Doing a Year After You Graduate?

We asked students what they thought they would be doing a year after high school graduation because we were interested in knowing what they projected for their own future. According to teachers, counselors, and administrators, the students who enroll in vocational education classes are not usually college material; they are more likely to be students who like to work with their hands or "sluff off." But what do students who are completing a vocational education class think is in their crystal ball?

Approximately 25% of the students who completed the survey said they planned to be employed after high school. Many of this 25% were planning to remain in the same job they had on their job site as part of the vocational education class in which they were presently enrolled. Some of these students were already involved in work on the family farm and planned to continue working with their parents or eventually take over the business. Approximately 5% planned to go into some branch of the military and some already had enlisted.

The remaining 70% anticipated going on to some form of education. Of this 70% who anticipated further education, approximately 40% planned to go to college and approximately 60% planned to go on to some type of vocational school. Approximately two-thirds of those who thought they would go to college or a vocational school also anticipated working while they are pursuing their education.

Contrary to the educators' perspective that most students in vocational education classes are not college-bound, a high percentage of those enrolled in the classes we studied foresaw further education for themselves--many planning to go on to college. These students seemed to have confidence in their abilities to enroll and compete in educational endeavors. We also know, however, that most schools do not have 70% of their entire student body going on to further education in any given year. For example, in Minnesota in 1984, 57% of high school graduates who had been out of school for one year were enrolled in two- and four-year colleges and vocational schools. Therefore, we suspect that many of these students either are unrealistic about their abilities in competing in higher education, or are unwilling to admit to us or themselves that further education is not part of their future.

We also note that two-thirds of those who plan to go on to further education expect to work while they are pursuing their education. Many of these students expect to use the skills learned in vocational education classes in securing employment.

Summary

We can conclude that vocational education does provide increased opportunities for students. Vocational education apparently serves a variety of student needs, some of which might not be met through other classroom experiences. Vocational education also helps in making winners out of students by laying the foundation for other learning and by increasing their self-esteem. The students themselves generally see vocational education as providing them with opportunities for employment and education.

Further research might focus on actual outcomes for students enrolled in vocational education classes. For those students who pursued employment or education after high school, did the vocational education experience substantially contribute to skills needed in that employment or educational situation? Could those skills have been developed more fully on the job or by way of some other aspect of the high school curriculum? These are examples of questions we still need to investigate as we seek to examine the degree to which the outcomes of vocational education are equitable.

Chapter V

Perspectives

Ideally, at this point in presenting our findings, we would like to have a dialogue with the reader. To us--and we hope to the reader--this is a provacative report. We have raised several questions throughout the monograph, and we have left other questions and concerns unstated. Undoubtedly, the reader also has questions and reactions to offer. Some of these questions are empirical and call for further research. Others are nonempirical and call for dialogue and policy decisions among people concerned about education.

This written form of presenting findings precludes, at this time anyway, the dialogue we seek. Our next best alternative--given this ink-and-paper format--is to present different perspectives about the study. Preparing and presenting these perspectives not only highlights certain issues for discussion, but also encourages us as researchers to increase our objectivity about the study--that is, to reflect on the findings with minimal distortion from personal feelings and prejudices.

What we present in the following paragraphs are two possible perspectives on the study reported in this monograph. First is an imagined reaction from a cynic of vocational education. This is the person who questions the sincerity and rectitude of vocational education, the person who believes that those who practice and promote vocational education are motivated by self-interest and self-indulgence. Second is an imagined reaction from an advocate of vocational education. This is the person who champions, espouses, endorses, and, when necessary, defends vocational education. The advocate is a proponent of vocational education, one who publicly supports vocational education and speaks in favor of it.

These points of view have not been developed to respond to one another, nor have they been developed with any thought that they are comprehensive of a cynical or advocacy point of view. They have been developed to foster understanding of 'equity in education' and 'equity in vocational education', encourage a continued commitment to equity in education, and stimulate policy decisions which will increase the extent to which students in secondary schools receive an equitable education.

A Cynic's Perspective

About Access to Vocational Education

This report raises disturbing questions about who gains access to vocational education and why. It is clear from the educators' accounts that systematic tracking is operating in the secondary school. Students who are considered less able academically, students who are not very serious about school, and students with special needs are almost assured of a spot in vocational courses. Are educators, especially vocational educators, satisfied with this state of affairs? Do they think that vocational education is more suited to these students than it is to other students? If so, why don't they acknowledge that--not only to one another but also to students and their parents? If they are not satisfied with this sorting that goes on, what are they doing about it? Are they examining curricula and teaching practices to make sure that bright students are challenged and that all students can benefit from vocational education? Or, if they think the tracking occurs because of stereotyped and inaccurate perceptions of vocational education, what are they doing to change those perceptions?

To a cynic, it seems that vocational educators are more concerned about filling their classes in order to keep their jobs than they are about examining vocational education--or a particular field within it--to gain clarity about its purposes, clientele, and place--if there is a place--in the secondary school. Are vocational courses planned to contribute to the general education of all students? Are vocational courses planned to develop skills and understandings which the nonvocational courses do not? If so, for which students? How do vocational programs fit within the total high school context?

About Treatment Within Vocational Education Classrooms

The findings about how students are treated in vocational classes suggest a couple issues that need attention. One issue has to do with the personal/emotional bonds which are built between vocational teachers and their students and among the students themselves. Although feelings of belonging and being accepted are desirable to foster and for some are necessary preludes to learning, is "feeling good" emphasized at the expense of "learning a lot?" To shortchange students' learning because we think they have such strong needs to feel comfortable or desires to sluff off is to show disrespect for students and is to provide them with an education which is not just.

Another issue related to treatment has to do with the uniqueness of vocational education. There's a tone in this report that vocational education classes, more than other classes, take into account the needs of individual students. Although this message of uniqueness is implied and not explicitly claimed, the cynic senses that vocational educators might be somewhat self-indulgent in thinking that they are meeting students' needs and interests more than other educators.

About Outcomes of Vocational Education

Since it has been documented in this and other studies that students in secondary schools are routed toward a vocational track or an academic track, to ask if the outcomes of vocational education are equitable is to ask if education can be different but equitable. With a social justice concept of equity, one is concerned about economic and political power. Does vocational education help students acquire economic and political power in our society or does it, however unintentionally, lead them into situations of domination and exploitation? The cynic worries about what happens under the guise of education. Does the current system of public education--including the role played by vocational education--perpetuate a class system where the poor and unempowered (who are dispproportionately of racial minorities and female) remain poor and unempowered?

Considering all these issues about equity in vocational education, a cynic would see a need for reform in the educational system. What would it take to reform vocational education? What role would vocational educators play in such a reform? Could vocational educators give leadership to such a reform? Could they avoid being trapped by motivations of self-interest and self-indulgence?

An Advocate's Perspective

About Access to Vocational Education

The findings about who gains access to vocational education and why can be looked at in a couple ways. One reaction is to say that vocational education attracts students who want what it offers. All students and their parents are not duped into the erroneous distinction between mental and manual learning and the value ascribed to each. In spite of prevailing views about what kind of learning experiences are most valuable and what kind of occupational goals are most noble, many students and their parents seek precisely what is offered by vocational education programs. To insinuate that students who elect vocational education courses don't know better or have no choice but to do so, is to arrogantly assume that one has a corner on wisdom and opportunity.

A second reaction to the findings about access to vocational education is to ask why those who think a tracking system is unjust lay the blame on vocational education? Why is vocational education more of a culprit than is the so-called "academic" track? If we want to eliminate systematic tracking in the high school, attitudes held about vocational education by nonvocational educators will need to be changed and many schooling practices and structures will need to be revamped. Too often vocational education is thought of as an entity of its own (down at the end of the hall or over in one wing of the school) rather than conceiving it as part of the total context of the school.

About Treatment Within Vocational Education Classrooms

If the students who take vocational courses are disproportionately low-ability, low-school-interest, high-special-need, then vocational teachers are to be applauded for their work. They are working with students who require the most patience, attention, and individual instruction. It must "smart" to work all day with many students who other teachers don't want in their classes and then be criticized for teaching "nonintellectual" subjects (also implying that nonintellectuals can teach them?). This report provides numerous examples of teachers' helping each student develop his or her own talents and interests. That's difficult in any situation but especially so when interests and abilities are as varied as they are among students in vocational classes. Furthermore, vocational teachers express genuine enjoyment of working with their students;

teaching for them is highly rewarding. Perhaps this is one reason why many students say that vocational classes are their favorite classes in school.

Vocational teachers also should be applauded for their fair treatment of students regardless of students' gender, race, and handicaps. The commonly held assumptions about the treatment of students within vocational classes (e.g., that males have certain opportunities and females have other opportunities) were not supported by this study. Students were given opportunities and responsibilities according to their learning needs and interest.

Although vocational education needs to be attentive to and work to eliminate the serious race and gender inequities in our society, vocational education should not allow itself to be the educational system's scapegoat for these insidious inequities. Remedying these inequities is a far greater and much more complex task than can be handled by having males wash dishes after a foods lab or females change a car tire in an auto mechanics class.

About Outcomes of Vocational Education

According to students in this study, what they were learning in vocational education was consistent with their personal interests, abilities, and goals. Students, the ultimate consumers of vocational education, perceive immediate and at least short-term usefulness of their vocational education experiences. Do they have similar evaluations of their nonvocational school experiences?

There is no way for us to know what would happen to students had they not taken vocational education. Would they have achieved greater economic and political power? Or could it be that they would be even less empowered than they are? And to fill out this scenario, we need to question whether or not students who did not take vocational education in high school would have been better off had they taken one or more vocational courses.

A Note about the Authors

Jane Plihal, an assistant professor of home economics education at the University of Minnesota, earned the Ph.D. in education at The University of Chicago and the M.A. and B.S. in home economics education at the University of Minnesota. Her current teaching and research interests include equity, purposes of vocational education, international development, research methodology, intrinsic rewards of teaching and learning, and career development of home economics educators.

Linda Ernst is a research and teaching assistant at the University of Minnesota where she is nearing completion of the Ph.D. in education with emphasis on the general education aspects of vocational education. She received the M.S. in human development and the family at the University of Nebraska and the B.A. in social welfare from the University of Minnesota. She also studied in the Department of Family Studies at Brigham Young University. Presently, her teaching and research interests center on family life education. She is formulating her dissertation research around the issue of values and parent education, especially as the educational process upholds values which conflict with those held by parents in various socioeconomic and ethnic groups.

Marsha Rehm is a research and teaching assistant at the University of Minnesota where she is completing preliminary examinations and coursework for the Ph.D. in education with emphasis on the general education aspects of vocational education. She holds the M.A. in home economics education from the University of Minnesota and the B.S. in home economics education from North Dakota State University. At the University of Minnesota, she teaches courses on cognitive and affective learning. Her research interests deal with creativity, aesthetics, philosophy, feminist theory, interpretive science, and critical science.